



Material Safety Data Sheets

The food allergens used in the IBS-80 Skin Patch Test are all commonly or potentially encountered in an average diet. Material safety data sheets are provided in this document in alphabetical order. Some of the food allergens that have more than one name may be listed more than once.

Please note: The pharmacist and IBS-80, LLC make no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the IBS-80 materials.

Material safety data sheets are not available for the following freeze-dried foods: asparagus, celery, chives, corn, cucumber, garlic, leeks, mushroom, onion and tomato. Contact pharmacy for certificate of analysis if needed.



Penta International Corporation

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SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/14/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name ACETOIN NATURAL (POWDER)
Product Number 01-05255
Brand Penta
Identified Uses Manufacture of substances
Company Penta International Corporation
50 Okner Parkway
Livingston NJ 07039-1604 U.S.A.
Telephone (973)740-2300
Fax (973)740-1839
Emergency Phone (800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

OSHA Hazards

Irritant.

GHS Classification

Flammable solids (Category 2), H228

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements



Pictogram:

Signal word Warning

Hazard statement(s)

H226 Flammable liquid and vapour.

H228	Flammable solid.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
Precautionary statement(s)	
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302 P352	IF ON SKIN: Wash with plenty of soap and water.
P305 P351 P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see supplemental first aid instructions on this label).
P332 P313	If skin irritation occurs: Get medical advice/ attention.
P337 P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P370 P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

HMIS Classification

Health hazard	2
Flammability	2
Physical hazards	1

NFPA Rating

Health hazard	2
Fire	2
Reactivity Hazard	0

Potential Health Effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYMS	3-Hydroxy-2-butanone Acetylmethylcarbinol		
Formula	C4 H8 O2		
Molecular Weight	88.11 g/mol		
CAS-No	EC-No	Index-No.	Concentration

4. FIRST-AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Conditions of flammability

Not flammable or combustible.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions.- Carbon oxides.

Futher information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure

adequate ventilation. Remove all sources of ignition. Avoid breathing dust.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition- No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place

Recommended storage temperature: 2- 8 C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

safety glasses with side-shields conforming to EN 166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	SOLID
Colour	COLORLESS TO PALE YELLOW

Safety data

pH	no data available
Melting point (°C)	no data available
Boiling point (°C)	148
Flash point (°F) Closed cup	123
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	1.000
Water solubility	MISCIBLE
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odor	PLEASANT, BUTTER LIKE
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents, Strong bases

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides.

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

LD50 Oral - rat - -> 5,000 mg/kg

Inhalation LC50

no data available

Dermal LD50

LD50 Dermal - rabbit - > 5,000 mg/kg

Other information on acute toxicity

no data available

Skin corrosion/irritation

Skin - rabbit - Skin irritation - 24 h - Draize Test

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

Reproductive toxicity - rat - Oral

Paternal Effects: Testes, epididymis, sperm duct.

no data available.

Teratogenicity
no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects
no data available

Additional Information
RTECS: EL8790000

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish LC50 - Leuciscus idus (Golden orfe) - > 2,200 mg/l 96 h

LC50 - Leuciscus idus (Golden orfe) - > 2,200 mg/l - 48 h

Toxicity to bacteria

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 2621 Class: 3 Packing group: III
Proper shipping name: Acetyl methyl carbinol

IMDG

UN number: 2621 Class: 3 Packing group: III
Proper shipping name: Acetyl methyl carbinol

IATA

UN number: 2621 Class: 3 Packing group: III
Proper shipping name: Acetyl methyl carbinol

15. REGULATORY INFORMATION

OSHA Hazards

Irritant.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed

the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard.

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Acetoin	CAS-No.	Revision Date
	513-86-0	2007-03-01

New Jersey Right To Know Components

Acetoin	CAS-No.	Revision Date
	513-86-0	2007-03-01

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Revision Date: 11/01/2020

Print Date: 4/14/2022

Material Safety Data Sheet

ALLYL ISOTHIOCYANATE 01-20000

(FCC)

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Date Issued: 10/23/04

1. Chemical Product and Company Information

Penta International Corp.
50 Okner Parkway
Livingston, NJ 07039

WEB PAGE: WWW.PENTAMFG.COM
E-MAIL: SALES@PENTAMFG.COM

Company Contact:
Emergency Contact: CHEMTREC

Telephone Number: (973)740-2300
Telephone Number: (800)424-9300 24-hrs

Product Name: ALLYL ISOTHIOCYANATE
Product Code: 01-20000

Molecular Formula: C4 H5 N S

Molecular Weight: 99.16
CAS#: 57-06-7
FEMA#: 2034

2. Hazardous Ingredient(s)

Contains: SEE ABOVE

3. Physical Properties

Physical State: LIQUID	% Volatile: N/A
Odor: STRONG, PUNGENT, MUSTARD	Melting Point (°C): -80
Color: COLORLESS TO PALE YELLOW	Vapor Density (Air = 1): 3.41
Solubility in Water: SLIGHT	Refractive Index @ 20C: 1.531
Boiling Point (°C): 150	Water Content: N/A
Vapor Pressure (mm Hg @ 20°C): 13	Alcohol Content: N/A
Specific Gravity @ 25C (H2O=1.0): 1.015	

4. Physical Hazard Data

HAZARD: TOXIC, FLAMMABLE LIQUID	6.1, UN1545, PGII
SHIPPING NAME:	SUBSIDIARY RISK 3 (FLAMMABLE)
ALLYL ISOTHIOCYANATE, STABILIZED	Method Used: CC
Flash Point (°F): 115	
L.F.L: N/A	U.F.L: N/A
DOT: ALLYL ISOTHIOCYANATE, STABILIZED	6.1, UN1545, PGII SUBSIDIARY RISK: 3
IMDG: ALLYL ISOTHIOCYANATE, STABILIZED	6.1, UN1545, PGII SUBSIDIARY RISK: 3
IATA: ALLYL ISOTHIOCYANATE, STABILIZED	6.1, UN1545, PGII SUBSIDIARY RISK: 3
Extinguishing Media: Carbon Dioxide; Dry Chemical; Universal Type Foam	

Special Fire Fighting Procedures: Evacuate unprotected and untrained personnel. Trained firefighting personnel should be equipped with self-contained breathing apparatus and full protective gear.

Unusual Fire, Explosion and Stability Hazards: VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND FLASH BACK. EMITS TOXIC FUMES UNDER FIRE CONDITIONS

Material Safety Data Sheet

ALLYL ISOTHIOCYANATE 01-20000

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5. Health Hazard DataCarcinogenicity:

NTP: NO

OSHA: NO

IARC MONOGRAPH: GROUP 3 CARCINOGEN

OSHA PEL: NOT ESTABLISHED

ACGIH TLV: NOT ESTABLISHED

OEL-RUSSA TWA 0.3mg/m³ STEL 0.6 mg/m³ JANUARY 1993Acute Toxicity Data:

ORAL LD50: 122 mg/kg RAT

DERMAL LD50: 88 mg/kg RABBIT

INHALATION LC50: NOT ESTABLISHED

Health Hazards (Acute and Chronic):

Skin Contact: Causes skin irritation and possible burns. Prolonged exposure may produce blisters.

Inhalation: Causes respiratory tract irritation. May cause asthmatic attacks.

Eye Contact: Causes eye irritation. Lachrymator (Substance which increases the flow of tears).

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Other Effects:

The health hazard information is based on laboratory animal test data for the individual components of this product in their pure form as provided under 29 CFR 1910.1200 (d)(5)(ii). The user should consider the relevancy of this information in a manner consistent with its particular purpose.

6. Emergency First Aid Procedures

Eyes: IMMEDIATELY FLUSH EYES WITH LARGE QUANTITIES OF COLD CLEAN WATER FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN IMMEDIATELY.

Skin: WASH WITH SOAP AND WATER. FLUSH WITH LARGE QUANTITIES OF WATER. IF IRRITATION PERSISTS CALL A PHYSICIAN.

Inhalation: REMOVE TO FRESH AIR AND CALL A PHYSICIAN IF NECESSARY.

Ingestion: ADMINISTER WATER OR MILK TO DILUTE. CONTACT A PHYSICIAN OR LOCAL POISON CONTROL CENTER IMMEDIATELY. DO NOT INDUCE VOMITING.

7. Reactivity Data

This material presents no significant hazard. Hazardous Polymerization will not occur and it will not react violently with water.

Contact with highly reactive chemical oxidants should be avoided. If burned this product will produce carbon monoxide and/or carbon dioxide.

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Date Issued: 10/23/04

8. Personal Protection

Eyes: IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED. IF THE MATERIAL IS TO BE HANDLED IN A MANNER WHERE SPLASHING MAY OCCUR, THE USE OF SPLASH GOGGLES OR FACE SHIELD IS RECOMMEND.

Respiratory: IN WELL VENTILATED AREAS RESPIRATORY PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED, POORLY VENTILATED AREAS THE USE OF NIOSH-APPROVED RESPIRATORY PROTECTION MAYBE REQUIRED OR IF MATERIAL IS RATED TOXIC BY INHALATION.

Equipment and Apparel: THE USE OF CHEMICAL RESISTANT GLOVES IS RECOMMENDED. ACCEPTABLE INDUSTRIAL HYGIENE PRACTICES SHOULD BE MAINTAINED. LIMIT EXPOSURE TO PRODUCT WHENEVER POSSIBLE. WASH AFTER ANY CONTACT. THOROUGHLY WASH ANY CONTAMINATED CLOTHING OR SHOES.

Ventilation: VENTILATION MEETING ACGIH STANDARDS SHOULD BE EMPLOYED.

9. Storage and Handling

IT IS RECOMMENDED THAT THIS MATERIAL BE STORED IN TIGHT FULL CONTAINERS IN A COOL, DRY PLACE AWAY FROM LIGHT.

10. Spill, Release and Waste Disposal Procedures

REMOVE ANY SOURCES OF FLAME OR SPARKS. IF IN A CONFINED AREA NIOSH APPROVED RESPIRATORY PROTECTION MAY BE REQUIRED. ABSORB SPILLS ON VERMICULITE OR OTHER SUITABLE ABSORBENT MATERIAL AND REMOVE TO AN APPROVED DISPOSAL CONTAINER. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

11. Regulatory

US FEDERAL

HMIS III: PHYSICAL HAZARD: 2

HEALTH: 2 FLAMMABILITY: 2 REACTIVITY: 0 PERSONAL PROTECTION: X

TSCA

CAS# 57-06-7 IS LISTED ON THE TSCA INVENTORY.

HEALTH & SAFETY REPORTING LIST

NONE OF THE CHEMICALS ARE ON THE HEALTH & SAFETY REPORTING LIST.

CHEMICAL TEST RULES

NONE OF THE CHEMICALS IN THIS PRODUCT ARE UNDER A CHEMICAL TEST RULE.

SECTION 12B

NONE OF THE CHEMICALS ARE LISTED UNDER TSCA SECTION 12B.

TSCA SIGNIFICANT NEW USE RULE

NONE OF THE CHEMICALS IN THIS MATERIAL HAVE A SNUR UNDER TSCA.

SARA

Material Safety Data Sheet

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CERCLA HAZARDOUS SUBSTANCES AND CORRESPONDING RQS

NONE OF THE CHEMICALS IN THIS MATERIAL HAVE AN RQ.

SARA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES

NONE OF THE CHEMICALS IN THIS PRODUCT HAVE A TPQ.

SECTION 313

NO CHEMICALS ARE REPORTABLE UNDER SECTION 313.

CLEAN AIR ACT:

THIS MATERIAL DOES NOT CONTAIN ANY HAZARDOUS AIR POLLUTANTS. THIS MATERIAL DOES NOT CONTAIN ANY CLASS 1 OZONE DEPLETORS. THIS MATERIAL DOES NOT CONTAIN ANY CLASS 2 OZONE DEPLETORS.

CLEAN WATER ACT:

NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS HAZARDOUS SUBSTANCES UNDER THE CWA. NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS PRIORITY POLLUTANTS UNDER THE CWA. NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS TOXIC POLLUTANTS UNDER THE CWA.

OSHA:

NONE OF THE CHEMICALS IN THIS PRODUCT ARE CONSIDERED HIGHLY HAZARDOUS BY OSHA.

STATE

CAS# 57-06-7 CAN BE FOUND ON THE FOLLOWING STATE RIGHT TO KNOW LISTS:

CALIFORNIA, NEW JERSEY, PENNSYLVANIA, MINNESOTA, MASSACHUSETTS.

CALIFORNIA NO SIGNIFICANT RISK LEVEL: NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED.

EUROPEAN/INTERNATIONAL REGULATIONS**EUROPEAN LABELING IN ACCORDANCE WITH EC DIRECTIVES****HAZARD SYMBOLS:**

T

RISK PHRASES:

R 10 FLAMMABLE.

R 23/24/25 TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.

R 36/37/38 IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

SAFETY PHRASES:

S 16 KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.

S 26 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

S 36/37/39 WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.

S 45 IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

S 28B AFTER CONTACT WITH SKIN, WASH IMMEDIATELY WITH PLENTY OF WATER AND SOAP.

WGK (WATER DANGER/PROTECTION)

CAS# 57-06-7: NO INFORMATION AVAILABLE.

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CANADA - DSL/NDSL

CAS# 57-06-7 IS LISTED ON CANADA'S DSL LIST.

CANADA - WHMIS

THIS PRODUCT DOES NOT HAVE A WHMIS CLASSIFICATION.

CANADIAN INGREDIENT DISCLOSURE LIST

CAS# 57-06-7 IS LISTED ON THE CANADIAN INGREDIENT DISCLOSURE LIST.

EXPOSURE LIMITS

CAS# 57-06-7: OEL-RUSSIA:TWA 0.3 MG/M3;STEL 0.6 MG/M3

12. DisclaimerMaterial Safety Data Sheet prepared by: **Penta**

The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in this MSDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.

Aluminum sulfate, solid

MSDS No. 010
1/7/2011

Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Product/Chemical Name:	Aluminum Sulfate, Dry	Manufacturer:	<table border="1"> <tr> <td colspan="2">HMIS</td> </tr> <tr> <td>H</td> <td>1</td> </tr> <tr> <td>F</td> <td>0</td> </tr> <tr> <td>R</td> <td>0</td> </tr> <tr> <td colspan="2">PPE†</td> </tr> <tr> <td colspan="2">†Sec. 11</td> </tr> </table>	HMIS		H	1	F	0	R	0	PPE†		†Sec. 11	
HMIS															
H	1														
F	0														
R	0														
PPE†															
†Sec. 11															
Chemical Formula:	Al ₂ (SO ₄) ₃ •(14-18)(H ₂ O)	Delta Chemical Corporation													
CAS Number:	10043-01-3	2601 Cannery Avenue													
General Use:	Water Treatment Chemical	Baltimore, MD 21226-1595													
Emergency Contact:	800-424-9300 Chemtrec	Phone 410-354-0100 (7:00am 5:00pm) FAX 410-354-1021													

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt
Aluminum sulfate (hydrated)	10043-01-3	100

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
Aluminum sulfate <i>as aluminum</i>	2 mg/m ³	none estab.	2 mg/m ³	none estab.	2 mg/m ³	none estab.	none estab.

Section 3 - Emergency Overview

Description: White granule or powder. Water soluble. Not volatile. Not flammable.
Hazards: Harmful by ingestion. Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Section 4 - First Aid Procedures

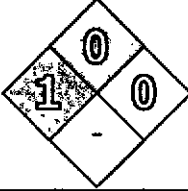
Eye Contact:	Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting upper and lower lids. Seek medical attention.
Skin Contact:	Remove contaminated clothing and wash contaminated skin with water.
Ingestion:	Do not induce vomiting, drink milk or water and immediately seek medical attention. Ingestion may irritate gastrointestinal tract.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 5 - Physical and Chemical Properties

Physical State:	solid	Water Solubility:	Complete
Appearance:	White granule or powder	Density:	varies, <98 lb/cu ft
Odor:	negligible odor	Boiling Point:	117° C/242° F
Vapor Pressure:	None	Freezing/Melting Point:	105° C/221° F
Vapor Density (Air=1):	Not applicable	% Volatile:	0.0
pH of 1% solution:	3.3 ± 0.5		

Section 6 - Fire-Fighting Measures

Flash Point:	Not applicable	NFPA 
Burning Rate:	Not applicable	
Autoignition Temperature:	Not applicable	
LEL:	Not applicable	
UEL:	Not applicable	
Flammability Classification:	Non-flammable	
Unusual Fire or Explosion Hazards:	If exposed to temperatures greater than 1400°F, Aluminum sulfate will decompose generating toxic and corrosive gas.	
Hazardous Combustion Products:	See Section 7.	
Fire-Fighting Instructions:	Do not release runoff from fire control methods to sewers or waterways.	

Section 7 - Stability and Reactivity

Stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
Polymerization:	Hazardous polymerization does not occur.
Chemical Incompatibilities:	Contact with alkalis and water-reactive materials causes exothermic reactions.
Conditions to Avoid:	None
Hazardous Decomposition Products:	Thermal oxidative decomposition of Aluminum sulfate occurs at temperatures greater than 1400°F and can produce sulfur oxides.

Section 8 - Health Hazard Information

Primary Entry Routes:	Ingestion, inhalation, eye or skin contact
Target Organs:	None
Acute Effects:	No unusual
Eye:	May cause a burning feeling.
Skin:	May cause a skin rash or burning feeling.
Ingestion:	May cause irritation of stomach and intestines. May cause nausea, vomiting or purging.
Inhalation:	Breathing aluminum sulfate can irritate the nose, throat and lungs causing coughing, wheezing and/or shortness of breath.
Carcinogenicity:	IARC, NTP, and OSHA do not list Aluminum Sulfate as a carcinogen.
Medical Conditions Aggravated by Long-Term Exposure:	Aluminum sulfate can irritate the lungs. Repeated exposure may cause bronchitis to develop with cough, phlegm, an/or shortness of breath.
Chronic Effects:	IARC, NTP, and OSHA list no evidence showing that any of the ingredients cause cancer or affect reproduction.

Section 9 - Spill, Leak, and Disposal Procedures

Spill /Leak Procedures:	Spill procedures are dictated by site wastewater flow controls and will vary from site to site. General procedures are provided in this document, but authorization for any wastewater discharge must be obtained prior to the discharge.
Large and Small Spills:	Sweep and shovel up dry chemical and place in a covered container. Wash down residue with large amounts of water and neutralize with soda ash or lime if necessary. Aluminum sulfate solutions can have a pH less than two. The neutralization of aluminum sulfate can generate carbon dioxide. Adequate ventilation must be provided. Do not discharge wastewaters to the environment or a wastewater treatment plant without authorization from the appropriate officials.
Containment:	Aluminum sulfate may absorb moisture and powders or crystals can solidify into a single mass. Protect aluminum sulfate from moisture.

Cleanup:	Wash impacted areas with water to remove residues.
Regulatory Requirements:	Follow applicable OSHA regulations (29 CFR 1910.120).
Disposal:	Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.
Container Cleaning and Disposal:	Make sure bags are completely empty and dispose of as industrial/commercial waste.

Section 10 - Regulatory Information

EPA Regulations:	
RCRA Hazardous Waste Classification:	-Not listed in 40 CFR Subpart D – Lists of Hazardous Wastes -Aqueous solutions may exhibit the characteristic of Corrosivity, EPA Hazardous Waste Number D002, 40CFR §261.22
CERCLA Hazardous Substance (40 CFR 302.4):	Listed CWA, Sec. 311 (b)(4)
CERCLA Reportable Quantity (RQ):	5,000 lbs (2,270 kg) as $Al_2(SO_4)_3$ 8,870 lbs (4,023 kg) as $Al_2(SO_4)_3 \cdot 14(H_2O)$
SARA 311/312 Codes:	Immediate (acute) health hazard
SARA Toxic Chemical (40 CFR 372.65):	Not listed
SARA EHS (Extremely Hazardous Substance) (40 CFR 355):	Not listed
OSHA Regulations:	
Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A):	Not listed
OSHA Specifically Regulated Substance (29CFR 1910.):	Not listed
State Regulations:	Delta Chemical Corporation has not investigated state specific requirements.

Section 11 - Exposure Controls / Personal Protection

Engineering Controls:	The best protection is to enclose operations and/or provide local exhaust ventilation at the site of the chemical release. Dust emission control may be required depending on the dust generation rate. Isolation operations can also reduce exposure.
Ventilation:	Can be used to control dust exposure but may require emission controls.
Administrative Controls:	Good work practices can help to reduce exposures. Train employees to minimize dust while handling this material.
Respiratory Protection:	Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, or storage tanks), wear an SCBA. <i>Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.</i> If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.
Protective Clothing/Equipment:	Wear protective gloves, boots, long pants and long sleeve shirts to prevent prolonged or repeated skin contact. Wear protective chemical safety glasses, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.
Safety Stations:	Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
Contaminated Equipment:	Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments:	Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.
------------------	---

Section 12 - Special Precautions and Comments

Handling Precautions:	Minimize and/or control dust while handling.
Storage Requirements:	Store in a cool, dry place. Wet aluminum sulfate will corrode steel.

Section 13 - DOT Transportation Data (49 CFR 172.101)

Shipping Name:	UN3077, Environmentally Hazardous Substance, solid, n.o.s. (Aluminum sulfate), 9, PG III	Packaging Authorizations	
		a) Exceptions:	173.155
		b) Non-bulk Packaging:	173.213
CERCLA RQ:	5,000 lbs (2,270 kg)	c) Bulk Packaging:	173.240
Hazard Class:	9	Quantity Limitations	
DOT No.:	UN3077	a) Passenger, Aircraft, or Railcar:	no limit
Packing Group:	III	b) Cargo Aircraft Only:	no limit
Special Provisions (172.102):	8,146,B54,IB8,IP3,N20,T1,TP33	Vessel Stowage Requirements	
2004 Emergency Response Guidebook:	Guide 171	a) Vessel Stowage:	A
		b) Other:	

Prepared By: Craig T. Owen

Effective Date: 12/10/01

Revision Notes: 1/7/11 - Periodic review. 2/10 - Section 10 revised. 2/08-DOT shipping name updated. 9/04, 4/04- Formatting changed

Disclaimer: The information presented herein is believed to be accurate and reliable, but is given without guaranty or warranty, expressed or implied. The user should not assume that all safety measures are indicated so that other measures may not be required. The user is responsible for assuring that the product and equipment are used in a safe manner that complies with all appropriate legal standards and regulations.

DELTA
Chemical Corporation



SAFETY DATA SHEET

A-015

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name trans-Anethole 5.0% pet
Article Number A-015

Applications Diagnosis of contact allergy.

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16 00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION**Health hazards**

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy. Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation.

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]**

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	95.0%	-
trans-Anethole	4180-23-8	5.0%	Skin sensit. 1, H317

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	95.0%	-
trans-Anethole	4180-23-8	5.0%	Xi; R43

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES**Emergency and first aid procedures**

Obtain medical attention.

5. FIRE-FIGHTING MEASURES***Suitable extinguish media**

CO₂, powder or water spray Fight larger fires with water spray or alcohol resistant foam



CHEMOTECHNIQUE DIAGNOSTICS

For safety reasons unsuitable extinguishing agents
Water with full jet.

Special protective equipment for fire-fighters
Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled
Contain and place in a closed container

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage
Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection
Not required

Ventilation
Local exhaust.

Protective gloves
Disposal gloves.

Eye protection
Not required with normal use.

Work/Hygienic practices
Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White Semi-solid
Odour	Weak Fragrance
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available.
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only

10. STABILITY AND REACTIVITY

Incompability
May react with strong oxidizing agents.

Stability
Stable at recommended storage conditions.



CHEMOTECHNIQUE DIAGNOSTICS

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur

11. TOXICOLOGICAL INFORMATION

No data available

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS**Waste disposal method**

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION**Text of H-statements and R-phrases mentioned in Section 3**

Skin sensit. 1	Skin sensitization (Category 1)
H317	May cause an allergic skin reaction
Xi	Irritant
R43	May cause sensitization by skin contact

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



Penta International Corporation

50 Okner Parkway Livingston, NJ 07039-1604 | Tel. (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	ANISE OIL NF
Product Number	01-35802
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

OSHA Hazards

Combustible Liquid, Skin sensitiser

Flammable liquids (Category 4)

Skin sensitisation (Category 1)

GHS Label elements, including precautionary statements

Pictogram:



Signal word

Warning

Hazard statement(s)

H227

Combustible liquid

H317

May cause an allergic skin reaction.

Precautionary statement(s)

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves.
P302 P352	IF ON SKIN: Wash with plenty of soap and water.
P333 P313	If skin irritation or rash occurs: Get medical advice/ attention.
P363	Wash contaminated clothing before reuse.
P370 P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard	1
Flammability	1
Physical hazards	0

NFPA Rating

Health hazard	1
Fire	1
Reactivity Hazard	0

Potential Health Effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.
Ingestion	May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYM	Anise seed oil		
Formula	N/A		
Molecular Weight	N/A		
CAS-No	EC-No	Index-No.	Concentration
8007-70-3	283-872-7		

4. FIRST-AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

no data available

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	Liquid
Colour	Colorless to pale yellow

Safety data

pH	no data available
Melting point (°C)	no data available
Boiling point (°C)	no data available
Flash point (°F) Closed cup	182
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	0.978
Water solubility	Insoluble
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odor	Anise
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Heat, flames and sparks

Materials to avoid

no data available

Hazardous decomposition products

no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50 - rat - 2,250 mg/kg

Inhalation LC50 -no data available

Dermal LD50 - rabbit - > 5,000 mg/kg

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

May cause allergic skin reaction.

Germ cell mutagenicity

Genotoxicity in vitro - rat - S typhimurium
Host-mediated assay

Genotoxicity in vitro - S. typhimurium
Mutation in microorganisms

Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin. May cause skin irritation.

Eyes

May cause eye irritation.

Synergistic effects

no data available

Additional Information

RTECS: BZ4200000

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS**Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)**

Not dangerous goods.

IMDG

Not dangerous goods.

IATA

Not dangerous goods.

15. REGULATORY INFORMATION**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Anise oil	8007-70-3	

New Jersey Right To Know Components

	CAS-No.	Revision Date
Anise oil	8007-70-3	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Revision Date: 11/01/2020

Print Date: 4/01/2022



SAFETY DATA SHEET

B-001

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name MYROXYLON PEREIRAE RESIN 25.0% pet
 Article Number B-001
 Applications Diagnosis of contact allergy
 Manufacturer Chemotechnique Diagnostics AB
 Modemgatan 9
 SE-235 39 Vellinge
 Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
 Fax +46 (0) 40 466 700

*Galsam of Peru***2. HAZARD IDENTIFICATION****Health hazards**

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy. Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]**

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	70.0%	-
MYROXYLON	-	25.0%	Skin irrit. 2, H315
PEREIRAE RESIN			
SORBITAN	8007-43-0	5.0%	-
SESQUIOLEATE			

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	70.0%	-
MYROXYLON	-	25.0%	Xi, R38
PEREIRAE RESIN			
SORBITAN	8007-43-0	5.0%	-
SESQUIOLEATE			

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES**Emergency and first aid procedures**

Obtain medical attention.



5. FIRE-FIGHTING MEASURES*

Suitable extinguish media

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Brown Semi-solid
Odour	Fragrance
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite.
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only



10. STABILITY AND REACTIVITY

Incompability

May react with strong oxidizing agents.

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Skin irrit. 2	Skin irritation (Category 2)
H315	Causes skin irritation.
Xi	Irritant
R38	Irritating to skin.

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **BAY OIL FCC**
Product Number 02-05200
Brand Penta
Identified Uses Manufacture of substances
Company Penta International Corporation
50 Okner Parkway
Livingston NJ 07039-1604 U.S.A.
Telephone (973)740-2300
Fax (973)740-1839
Emergency Phone (800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 3)
Acute toxicity, Oral (Category 4)
Skin irritation (Category 2)

GHS Label elements, including precautionary statements

Pictogram:  

Signal word Warning
Hazard statement(s)
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
Precautionary statement(s)

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 P312	IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P303 P361 P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P321	Specific treatment (see supplemental first aid instructions on this label).
P330	Rinse mouth.
P332 P313	If skin irritation occurs: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P370 P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard	1
Flammability	2
Physical hazards	0

NFPA Rating

Health hazard	1
Fire	2
Reactivity Hazard	0

Potential Health Effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	Harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYM	Pimenta racemosa		
Formula	No data available		
Molecular Weight	No data available		
CAS-No	EC-No	Index-No.	Concentration
8006-78-8			

4. FIRST-AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician..

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Air and light sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without

touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	LIQUID
Colour	YELLOW TO DARK BROWN

Safety data

pH	no data available
Melting point (°C)	no data available
Boiling point (°C)	245
Flash point (°F) Closed cup	132
Ignition temperature	no data available
Autoignitiontemperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	0.970
Water solubility	INSOLUBLE
Partition coefficient: n-octanol/water	no data available
Relative vapourdensity	no data available
Odor	PLEASANT, AROMATIC, SPICY
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

Other decomposition products

no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

LD50 Oral - rat - 1,800 mg/kg

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitisation

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Germ cell mutagenicity

no data available.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Skin

May be harmful if absorbed through skin. Causes skin irritation.

Eyes

Causes eye irritation.

Ingestion

Harmful if swallowed.

Signs and Symptoms of Exposure

Dermatitis, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. .

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods.

IMDG

Not dangerous goods.

IATA

Not dangerous goods.

15. REGULATORY INFORMATION

OSHA Hazards

Combustible Liquid, Harmful by ingestion., Irritant

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Bay oil CAS-No. 8006-78-8 Revision Date

New Jersey Right To Know Components

Bay oil CAS-No. 8006-78-8 Revision Date

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Revision Date: 11/01/2020

Print Date: 4/01/2022

Material Safety Data Sheet

Benzaldehyde

CC# 02590

Section 1 - Chemical Product and Company Identification

MSDS Name: Benzaldehyde

Catalog Numbers: B240 500, B240-500, B240500

Synonyms: Benzenecarboxaldehyde; artificial almond oil; benzene carbaldehyde; benzoic aldehyde

Company Identification:

Fisher Scientific

1 Reagent Lane

Fair Lawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
100-52-7	Benzaldehyde	100	202-860-4

Hazard Symbols: XN

Risk Phrases: 22

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: yellow liquid. Flash Point: 64 deg C. **Combustible liquid and vapor.** Harmful if swallowed. Causes digestive and respiratory tract irritation. Causes eye and skin irritation. May cause central nervous system depression. May cause kidney damage. **Warning!**

Target Organs: Kidneys, central nervous system.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation.

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause respiratory tract irritation. May cause

narcotic effects in high concentration.

Chronic: Prolonged or repeated skin contact may cause dermatitis. May cause kidney injury.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Antidote: None reported.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back.

Extinguishing Media: Use water spray to cool fire-exposed containers. Use water spray, dry chemical, or foam. Use carbon dioxide.

Flash Point: 64 deg C (147.20 deg F)

Autoignition Temperature: 192 deg C (377.60 deg F)

Explosion Limits, Lower: 1.40%

Upper: 8.5%

NFPA Rating: (estimated) Health: 2; Flammability: 2; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Avoid runoff into storm sewers and ditches which lead to waterways. Use water spray to disperse the gas/vapor. Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use only in a well-ventilated area. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from heat and flame. Keep away from sources of ignition. Store in a tightly closed

ontainer. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from reducing agents. Do not store near alkaline substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Benzaldehyde	none listed	none listed	none listed

OSHA Vacated PELs: Benzaldehyde: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: yellow

Color: bitter-almond

pH: 5.9

Vapor Pressure: 1 mm Hg @ 26.2C

Vapor Density: 3.65

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 178 deg C

Freezing/Melting Point: -56 deg C

Decomposition Temperature: Not available.

Solubility: Slightly soluble.

Specific Gravity/Density: 1.0415 @10C

Molecular Formula: C₆H₅CHO

Molecular Weight: 106.0414

Section 10 - Stability and Reactivity

Chemical Stability: Stable.

Conditions to Avoid: High temperatures, incompatible materials, ignition sources.

Incompatibilities with Other Materials: Incompatible with strong oxidizing agents. Oxidizes in air to benzoic acid. Reacts dangerously with performic acid.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic gases, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

TECS#:

CAS# 100-52-7: CU4375000

LD50/LC50:

CAS# 100-52-7:

Draize test, rabbit, skin: 500 mg/24H Moderate;

Oral, mouse: LD50 = 28 mg/kg;

Oral, mouse: LD50 = 2020 mg/kg;

Oral, rat: LD50 = 1300 mg/kg;

Oral, rat: LD50 = 2400 mg/kg;

Carcinogenicity:

CAS# 100-52-7: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No information available.

Teratogenicity: TDLo (Oral, mouse) = 154 gm/kg/2Y-C; Gastrointestinal - tumors

Reproductive Effects: No information available.

Neurotoxicity: No information available.

Mutagenicity: Mutation, mammalian somatic cells (Mouse Lymphocyte) = 400 mg/L. Cytogenetic analysis (Rodent - hamster Lung) = 1 gm/L

Other Studies: Standard Draize Test: Administration onto the skin (rabbit) = 500 mg/24H (Moderate).

Section 12 - Ecological Information

Toxicity: Fish: Rainbow trout: LC50 = 11 mg/L; 96 Hr.; Unspecified Fish: Bluegill/Sunfish: LC50 = 1.1 - 5 mg/L; 96 Hr.; Unspecified Water flea LC50 = 5.0 mg/L; 24 Hr.; Unspecified Bacteria: Phytobacterium phosphoreum: EC50 = 4.85 - 6.11 mg/L; 5, 15, 30 Minutes; Microtox Test, 15 degrees C No data available.

Environmental: Based upon a measured log Kow of 1.48 and a water solubility of 6950 mg/l at 25 deg C, the BCF for benzaldehyde can be estimated to be 7.8 and 4.2, respectively, these BCF values suggest that the bioconcentration in aquatic organisms is not important. A number of biological screening studies have demonstrated that benzaldehyde is readily biodegradable. Estimated Koc values of 34 and 150 suggest that benzaldehyde will leach readily.

Physical: Benzaldehyde has a BOD: 50%, 10 days; 150%, 5 days.

Other: Benzaldehyde absorbs UV irradiation weakly (extinction coefficient of 0-30/M-cu cm) in the spectra between 300 and 380 nm.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	No information available.				BENZALDEHYDE
Hazard Class:					9
UN Number:					UN1990
Packing Group:					III

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 100-52-7 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

RCRA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 100-52-7: flammable.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 100-52-7 can be found on the following state right to know lists: New Jersey, Pennsylvania, Minnesota, Massachusetts.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Risk Phrases:

R 22 Harmful if swallowed.

Safety Phrases:

S24 Avoid contact with skin.

WGK (Water Danger/Protection)

CAS# 100-52-7: 2

Canada - DSL/NDSL

CAS# 100-52-7 is listed on Canada's DSL List.

Canada - WHMIS

This product does not have a WHMIS classification.

Canadian Ingredient Disclosure List

CAS# 100-52-7 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits

CAS# 100-52-7: OEL-HUNGARY:TWA 5 mg/m³;STEL 10 mg/m³ OEL-RUSSIA:STE

L 5 mg/m³

Section 16 - Additional Information
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MSDS Creation Date: 5/03/1999

Revision #2 Date: 3/18/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, mental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.



SAFETY DATA SHEET

B-005

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name **BENZOIC ACID 5.0% pet**
Article Number **B-005**

Applications **Diagnosis of contact allergy.**

Manufacturer **Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge**

Telephone **+46 (0) 40 466 077 (Monday-Friday 8.00-16.00)**
Fax **+46 (0) 40 466 700**

2. HAZARD IDENTIFICATION**Health hazards**

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy
Localized dermal allergic reaction may occur at test site

Signs and symptom of exposure

Dermal irritation

Medical conditions aggravated by exposure

Dermatitis

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]**

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	95.0%	-
BENZOIC ACID	65-85-0	5.0%	Serious eye dam 1, Spec. targ. org tox. - single exp. 3; H318, H335

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	95.0%	-
BENZOIC ACID	65-85-0	5.0%	Xi; R37, R41

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES**Emergency and first aid procedures**

Obtain medical attention.

5. FIRE-FIGHTING MEASURES*

Suitable extinguish media



CHEMOTECHNIQUE DIAGNOSTICS

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam
For safety reasons unsuitable extinguishing agents
Water with full jet.

Special protective equipment for fire-fighters
Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C. Avoid extended exposure to sunlight. **FOR EXTERNAL USE ONLY.**

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use

Work/Hygienic practices

Wash hands after each use

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite.
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available.
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only

10. STABILITY AND REACTIVITY

Incompability

May react with strong oxidizing agents.

Stability



CHEMOTECHNIQUE DIAGNOSTICS

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

No data available

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Serious eye dam. 1	Serious eye damage (Category 1)
Spec. targ org tox - single exp. 3	Specific target organ toxicity - single exposure (Category 3)
H318	Causes serious eye damage
H335	May cause respiratory irritation
Xi	Irritant
R37	Irritating to respiratory system
R41	Risk of serious damage to eyes

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



Penta International Corporation

50 Okner Parkway Livingston, NJ 07039-1604 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	BENZOIN GUM RESIN
Product Number	02-12800
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Skin irritation (Category 2)

GHS Label elements, including precautionary statements

Pictogram:

Signal word	Warning
Hazard statement(s)	
H315	Causes skin irritation.
Precautionary statement(s)	
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves.
P302 P352	IF ON SKIN: Wash with plenty of soap and water.
P321	Specific treatment (see supplemental first aid instructions on this label).
P332 P313	If skin irritation occurs: Get medical advice/ attention.

P362

Take off contaminated clothing and wash before reuse.

HMIS Classification

Health hazard 2
Flammability 1
Physical hazards 0

NFPA Rating

Health hazard 2
Fire 1
Reactivity Hazard 0

Potential Health Effects

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

Skin

May be harmful if absorbed through skin. Causes skin irritation.

Eyes

May cause eye irritation.

Ingestion

May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYM

?-Hydroxy-?-phenylacetophenone
?-Hydroxybenzyl phenyl ketone
2-Hydroxy-2-phenylacetophenone

Formula

C₁₄H₁₂O₂

Molecular Weight

212.24 g/mol

CAS-No

119-53-9

EC-No

204-331-3

Index-No.

Concentration

4. FIRST-AID MEASURES

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid breathing vapours, mist or gas.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	SOLID
Colour	REDDISH GRAY OR GRAYISH BROWN

Safety data

pH	no data available
Melting point (°C)	no data available
Boiling point (°C)	no data available
Flash point (°F) Closed cup	>200
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	N/A
Water solubility	INSOLUBLE
Partition coefficient: n-octanol/water	no data available

Relative vapour density	no data available
Odor	CHARACTERISTIC
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50 -no data available

Inhalation LC50 -no data available

Dermal LD50 -no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Signs and Symptoms of Exposure

no data available

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods.

IMDG
Not dangerous goods.

IATA
Not dangerous goods.

15. REGULATORY INFORMATION

OSHA Hazards
No known OSHA hazards

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313. This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Benzoin	119-53-9	

New Jersey Right To Know Components

	CAS-No.	Revision Date
Benzoin	119-53-9	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES**Safety Data Sheet prepared by: Penta**

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Revision Date: 11/01/2020

Print Date: 4/01/2022

Penta Manufacturing Company

<http://www.pentamfg.com>

Material Safety Data Sheet

Revision Date: 8/02/2012

Print Date: 8/13/2012

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	BENZOYL PEROXIDE-HYDROUS- USP
Product Number	02-16000
Brand	Penta
Company	Penta
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. Hazard(s) identification Emergency Overview

OSHA Hazards -
Harmful by ingestion

GHS Classification
no data available

GHS Label elements, including precautionary statements

Pictogram

Signal word

Warning

Hazard statement(s)

None

Precautionary statement(s)

None

HMIS Classification

Health hazard

3

Flammability

Physical hazards

0

NFPA Rating

0

Health hazard

Fire

3

Reactivity Hazard

0

Potential Health Effects

3

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

Harmful if absorbed through skin. May cause skin irritation

May cause eye irritation.

Yes

Ingestion

May be harmful if swallowed

3. Composition/information on ingredients

Synonyms

Benzoperoxide

Formula

C14 H10 O4

Molecular Weight

242.23

CAS-No

EC-No

Index-No.

Concentration

94-36-0

4. First-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Consult a physician.

In case of eye contact

Flush eyes with plenty of water for at least 15 minutes. assure adequate flushing by separaatin the eyelids with fingers. Consult a physician.

If swallowed

Wash out mouth with water provided person is conscious. Call a physician.

5. Fire-fighting measures

Flash Point

N/A

Autoignition temp

80,00°C

Flammability

N/A

Extinguishing media

Suitable: carbon dioxide, dry chemical powder, or appropriate foam

Firefighting

Protective Equipment: Wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific hazard(s): Emits toxic fumes under fire conditions. contact with other material may cause fire. May accelerate combustion.

6. Accidental release measures**Procedure to be followed in case of leak or spill:**

Evacuate area.

Personal precautions

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods and materials for containment and cleaning up

sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7. Handling and storage**Precautions for safe handling**

User Exposure: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

Conditions for safe storage

Suitable: Keep tightly closed. Keep away from combustible materials, heat, sparks, and open flame. Store below 30°C

8. Exposure controls/personal protection**Engineering controls**

Use only in a chemical fume hood. Safety shower and eye bath.

Personal protective equipment**Respiratory protection**

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

General hygiene measures

Wash thoroughly after handling. Remove and wash contaminated clothing promptly. Discard contaminated shoes.

9. Physical and chemical properties**Appearance**

Form

solid

Safety data

H	
Melting point	no data available
Boiling point	103°C
Flash point	no data available
Ignition temperature	165 °F - closed cup
Autoignition temperature	no data available
Lower explosion limit	80 °C
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	INSOLUBLE
Relative vapour density	no data available
Odor	no data available
	Characteristic

10. Stability and reactivity**STABILITY**

Stable: Unstable.

Conditions of Instability: Self ignition is possible.

Conditions to Avoid: Heat. Contamination.

Materials to Avoid: Strong acids, Strong bases, Strong oxidizing agents, Amines, Polymerizing initiators, Reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Benzoic acid.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11. Toxicological information**Acute toxicity**

Oral LD50 - no data available

Inhalation LC50 - no data available

Dermal LD50 - no data available

Route of exposure

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.
Readily absorbed through skin.

Eye Contact: Causes eye irritation.

Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

Sensitization

Skin: May cause skin sensitization

Target organ(s) or system(s)

Lungs, Nerves, testes

Signs and symptoms of exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information**Toxicity**

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. Disposal considerations**APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION**

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

14. Transport information**DOT (US)**

Proper Shipping Name: Organic peroxide type C, solid

UN#: 3104

Class: 5.2

Packing Group: Packing Group II

Hazard Label: Organic Peroxide

PIH: Not PIH

IMDG

Proper Shipping Name: Organic peroxide type C, solid

IATA UN Number: 3104

Hazard Class: 5.2

IATA

Proper Shipping Name: Organic peroxide type C, solid

IATA UN Number: 3104

Hazard Class: 5.2

15. Regulatory information**EU ADDITIONAL CLASSIFICATION**

Symbol of Danger: O-Xi

Indication of Danger: Oxidizing. Irritant.

R: 1-7-36-43

Risk Statements: Explosive when dry. May cause fire. Irritating to eyes. May cause sensitization by skin contact.

S: 7-14-26-35-36/37/39-47-45

Safety Statements: Keep container tightly closed. Keep away from combustible material. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. This material and its container must be disposed of in a safe way. Wear suitable protective clothing, gloves, and eye/face protection. Keep at temperature not exceeding 30°C In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Oxidizing. Irritant.

Risk Statements: Explosive when dry. May cause fire. Irritating to eyes. May cause sensitization by skin contact.

Safety Statements: Keep container tightly closed. Keep away from combustible material. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. This material and its container must be disposed of in a safe way. Wear suitable protective clothing, gloves, and eye/face protection. Keep at temperature not exceeding 30°C

US Statements: Target organ(s): Lungs. Nerves.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: Yes

DEMINIMIS: 1,000 %

NOTES: This product is subject to SARA section 313 reporting requirements.

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

16. Other Categories

Material Safety Data Sheet prepared by: Penta

The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the MSDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the MSDS. The user should review these regulations to ensure full compliance.



SAFETY DATA SHEET

B-039

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name BENZYL CINNAMATE 10.0% pet
Article Number B-039
Applications Diagnosis of contact allergy.
Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge
Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION

Health hazards

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy. Localized dermal allergic reaction may occur at test site

Signs and symptom of exposure

Dermal irritation

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	90.0%	-
BENZYL CINNAMATE	103-41-3	10.0%	-

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	90.0%	-
BENZYL CINNAMATE	103-41-3	10.0%	-

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Emergency and first aid procedures

Obtain medical attention.

5. FIRE-FIGHTING MEASURES*

Suitable extinguish media



CHEMOTECHNIQUE DIAGNOSTICS

CO₂, powder or water spray Fight larger fires with water spray or alcohol resistant foam.
For safety reasons unsuitable extinguishing agents
Water with full jet.

Special protective equipment for fire-fighters
Wear self-contained respiratory protective device Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled
Contain and place in a closed container

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage
Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection
Not required.

Ventilation
Local exhaust.

Protective gloves
Disposal gloves.

Eye protection
Not required with normal use.

Work/Hygienic practices
Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available.
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only

10. STABILITY AND REACTIVITY

Incompatibility
May react with strong oxidizing agents.



CHEMOTECHNIQUE DIAGNOSTICS

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides

Hazardous polymerization

Will not occur

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS**Waste disposal method**

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION**Text of H-statements and R-phrases mentioned in Section 3**

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



Material Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section I. Product and Company Identification				
Product Name	Food Color, Blue (Powdered)		Item Code	30-1276
Commercial Name	N/A		CAS#	N/A
Synonym(s)	Color Additive		RTECS	N/A
			In case of emergency contact: CHEMTREC (24hr) 1-800-424-9300	
			HMIS Label	
Supplier	PCCA 9901 South Wilcrest Houston, TX 77099	Phone 1-800-331-2498 Fax 1-800-874-5760	Health Hazard	0 - Minimal
			Flammability	0 - Minimal
			Reactivity	0 - Minimal
			Personal Protection	A

Section II. Composition and Information on Ingredients				
Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
None	N/A	N/A	N/A	N/A

Section III. Hazards Identification	
Potential Acute Health Effects	May cause eye irritation by direct contact. May cause respiratory tract irritation.
Potential Chronic Health Effects	None available.

Section IV. First Aid Measures	
Eye Contact	Flush eyes with water for at least 15 minutes. If irritation persists, contact a doctor.
Skin Contact	Wash skin with soap and plenty of water. Remove contaminated clothing and wash before wearing again.
Inhalation	Remove individual to fresh air.
Ingestion	If large quantities are ingested, consult your physician.
Other	None available.

Section V. Fire and Explosion Data	
Flash Points	None available.
Flammable Limits	None available.
Products of Combustion	None available.
Fire Hazards	None available.
Explosion Hazards	None available.
Fire Fighting Media and Instructions	Will not burn.
Extinguishing Media to Avoid	None available.
Other	None available.

Section VI. Accidental Release Measures	
Spill Cleanup Instructions	Clean up with warm water and Hypochlorite Bleach.



Material Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400 1-1998

Section VII. Handling and Storage

Handling and Storage Info: Store in a tightly sealed container

Section VIII. Exposure Controls/Personal Protection

Personal Protection: Eyes. Eye protection is suggested for compliance with Good Manufacturing Practices. Respiratory: No respiratory protection required, but dust masks are suggested

Other Protective Measures and Equipment: To minimize clean-up, wear gloves when handling material. Some dyes may temporarily stain skin. Use good personal hygiene practices, limit exposure to product whenever possible to minimize clean-up

Exposure Limits: None available.

Section IX. Physical and Chemical Properties

Appearance: Bright light blue powder

Odor: Non odiferous

Molecular Weight: None available.

Boiling Point: None available.

Melting Point: None available.

Specific Gravity: None available.

Vapor Pressure: None available.

Vapor Density: None available.

Viscosity: None available.

Solubility: None available.

Other: None available.

Section X. Stability and Reactivity Data

Stability: This is a very stable material

Conditions to Avoid: None available.

Materials to Avoid: Avoid contact with strong Alkalines and Oxidizing agents.

Other: Polymenzation will not occur

Section XI. Toxicological Information

Routes of Entry: None available.

Toxicity Data: None available.

Section XII. Ecological Information

Information: None available.

Section XIII. Disposal Considerations

Waste Disposal: Sanitary landfill in accordance with local, State and Federal regulations.

Section XIV. Transport Information

DOT Classification: None available.

Section XV. Other Regulatory Information

Regulations



Material Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Other

Section XVI. Other Information

Other

Not available



SAFETY DATA SHEET

B-022

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name Article Number 2-tert-Butyl-4-methoxyphenol (BHA) 2.0% pet B-022

Applications Diagnosis of contact allergy.

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION**Health hazards**

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy
Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation

Medical conditions aggravated by exposure

Dermatitis

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]**

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
2-tert-Butyl-4-methoxyphenol (BHA)	121-00-6	2.0%	-

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
2-tert-Butyl-4-methoxyphenol (BHA)	121-00-6	2.0%	-

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES**Emergency and first aid procedures**

Obtain medical attention

5. FIRE-FIGHTING MEASURES*

Suitable extinguish media



CHEMOTECHNIQUE DIAGNOSTICS

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
For safety reasons unsuitable extinguishing agents
Water with full jet.

Special protective equipment for fire-fighters
Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled
Contain and place in a closed container

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage
Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection
Not required.

Ventilation
Local exhaust.

Protective gloves
Disposal gloves.

Eye protection
Not required with normal use.

Work/Hygienic practices
Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite
Danger of explosion*	Product does not present an explosion hazard
Density*	No data available
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only

10. STABILITY AND REACTIVITY

Incompability
May react with strong oxidizing agents.

Stability



CHEMOTECHNIQUE DIAGNOSTICS

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



SAFETY DATA SHEET

D-006

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name BHT 2.0% pet
Article Number D-006

Applications Diagnosis of contact allergy.

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION**Health hazards**

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy
Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation

Medical conditions aggravated by exposure

Dermatitis

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]**

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
BHT	128-37-0	2.0%	Acute tox. Oral 4, Skin irrit. 2, Eye irrit. 2, Chron. aq. tox. 1, H302, H315, H319, H411

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
BHT	128-37-0	2.0%	Xn, N, R22, R36/38, R51/53

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES**Emergency and first aid procedures**

Obtain medical attention

5. FIRE-FIGHTING MEASURES*



CHEMOTECHNIQUE DIAGNOSTICS

Suitable extinguish media

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C. Avoid extended exposure to sunlight FOR EXTERNAL USE ONLY.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only

10. STABILITY AND REACTIVITY

Incompability

May react with strong oxidizing agents.



CHEMOTECHNIQUE DIAGNOSTICS

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides

Hazardous polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS**Waste disposal method**

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION**Text of H-statements and R-phrases mentioned in Section 3**

Acute tox. Oral 4	Acute toxicity, Oral (Category 4)
Skin irrit. 2	Skin irritation (Category 2)
Eye irrit. 2	Eye irritation (Category 2)
Chron aq tox. 1	Chronic aquatic toxicity (Category 1)
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H411	Toxic to aquatic life with long lasting effects.
Xn	Harmful
N	Dangerous for the environment
R22	Harmful if swallowed
R36/38	Irritating to eyes and skin.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



Penta International Corporation

50 Okner Parkway Livingston, NJ 07039-1604 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	CAPSICUM GROUND
Product Number	03-08900
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 3)

Skin irritation (Category 2)

Eye irritation (Category 2A)

Respiratory sensitisation (Category 1)

Skin sensitisation (Category 1)

Specific target organ toxicity - single exposure (Category 3), Respiratory system

GHS Label elements, including precautionary statements

Pictogram:



Signal word

Danger

Hazard statement(s)

H301

Toxic if swallowed.

H315

Causes skin irritation.

H317

May cause an allergic skin reaction.

H319

Causes serious eye irritation.

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
Precautionary statement(s)	
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/ eye protection/ face protection.
P285	In case of inadequate ventilation wear respiratory protection.
P301 P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P302 P352	IF ON SKIN: Wash with plenty of soap and water.
P304 P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 P351 P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see supplemental first aid instructions on this label).
P330	Rinse mouth.
P333 P313	If skin irritation or rash occurs: Get medical advice/ attention.
P337 P313	If eye irritation persists: Get medical advice/ attention.
P342 P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.
P362	Take off contaminated clothing and wash before reuse.
P403 P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS

Lachrymator.

Lachrymator., Sternutator.

HMIS Classification

Health hazard	1
Flammability	1
Physical hazards	1

NFPA Rating

Health hazard	1
Fire	1
Reactivity Hazard	0

Potential Health Effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.

Ingestion

Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYM	8-Methyl-N-vanillyl-trans-6-nonanamide		
Formula	C18 H27 NO3		
Molecular Weight	305.41		
CAS-No	EC-No	Index-No.	Concentration
85940-30-3	206-969-8	N/A	N/A

4. FIRST-AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician. Take victim immediately to hospital.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type n99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form LIQUID
Colour LIGHT AMBER TO DARK AMBER

Safety data

pH no data available
Melting point (°C) no data available
Boiling point (°C) no data available
Flash point (°F) Closed cup >200
Ignition temperature no data available
Autoignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Vapour pressure (mm Hg @20 °C) no data available
Density @25 °C 1.010
Water solubility SOLUBLE
Partition coefficient: n-octanol/water no data available
Relative vapour density no data available
Odor CHARACTERISTIC
Odour Threshold no data available
Evaporation rate no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50 -no data available

Inhalation LC50 -no data available

Dermal LD50 - no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Eyes - guinea pig

Result: Mild eye irritation

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	Harmful if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes serious eye irritation.

Signs and Symptoms of Exposure

no data available

Additional Information

RTECS: RA8530000

burning sensation, Cough, sneezing, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods.

IMDG

Not dangerous goods.

IATA

Not dangerous goods.

15. REGULATORY INFORMATION

OSHA Hazards

No known OSHA hazards.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Component

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Component

No components are subject to the Pennsylvania Right to Know Act.

New Jersey Right To Know Component

No components are subject to the Pennsylvania Right to Know Act.

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Revision Date: 11/01/2020

Print Date: 4/01/2022



Penta International Corporation

50 Okner Parkway Livingston, NJ 07039-1604 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	CARAWAY SEED OIL
Product Number	03-09500
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Acute toxicity, Oral (Category 4)

GHS Label elements, including precautionary statements

Pictogram:

Signal word	Warning
Hazard statement(s)	
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H320	Causes eye irritation
Precautionary statement(s)	
P102	Keep out of reach of children.
P103	Read label before use.

P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves, protective clothing, eye and face protection.
P301, P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302, P352	IF ON SKIN wash with plenty of soap and water.
P330	Rinse mouth.
P337, P313	If eye irritation persists, get medical attention.
P501	Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation
Eyes	May cause eye irritation.
Ingestion	May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYM	N/A		
Formula	N/A		
Molecular Weight	N/A		
CAS-No	EC-No	Index-No.	Concentration
8000-42-8			

4. FIRST-AID MEASURES

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Avoid breathing vapours, mist or gas.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	colorless to pale yellow

Safety data

pH	no data available
Melting point (°C)	no data available
Boiling point (°C)	193
Flash point (°F) Closed cup	145
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	0.1
Density @25 °C	0.910
Water solubility	insoluble
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odor	characteristic

Odour Threshold no data available
Evaporation rate no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50 -no data available

Inhalation LC50 -no data available

Dermal LD50 -no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin May cause skin irritation.

Eyes May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods.

IMDG

Not dangerous goods.

IATA

Not dangerous goods.

15. REGULATORY INFORMATION

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III,

Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA hazards

Massachusetts Right To Know Component

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Component

No components are subject to the Pennsylvania Right to Know Act.

New Jersey Right To Know Component

No components are subject to the New Jersey Right to Know Act.

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Revision Date: 11/01/2020

Print Date: 4/01/2022



Material Safety Data Sheet

Carmine

MSDS# 04352

Section 1 - Chemical Product and Company Identification

MSDS Name: Carmine
Catalog Numbers: C579-25
Synonyms: Carmine aluminum lake; CI 75470
Company Identification: Fisher Scientific, One Reagent Lane, Fair Lawn, NJ 07410
For information in the US, call: 201-796-7100
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 1390-65-4
Chemical Name: Carmine
%: 100
EINECS#: 215-724-4

Hazard Symbols: None listed
Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Caution! The toxicological properties of this material have not been fully investigated. May cause irritation. Target Organs None.

Potential Health Effects

Eye: May cause eye irritation.
Skin: May cause skin irritation.
Ingestion: Ingestion of large amounts may cause gastrointestinal irritation. The toxicological properties of this substance have not been fully investigated.
Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.
Chronic: No information found

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid
Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid
Inhalation: Remove from exposure and move to fresh air immediately. Get medical aid if cough or other symptoms appear.

Notes to Physician.

Section 5 - Fire Fighting Measures

General: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be

Solubility in water: Not available

Specific Gravity/Density

Molecular Formula: C₉H₆F₂O₂

Molecular Weight: 184.14

Section 10 - Stability and Reactivity

Chemical Stability:	Stable
Conditions to Avoid:	Incompatible materials.
Incompatibilities with Other Materials	Not available
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, aluminum oxide.
Hazardous Polymerization	Has not been reported.

Section 11 - Toxicological Information

RTECS#:	CAS# 1390-65-4: FH8891000
LD50/LC50:	RTECS: Not available.
Carcinogenicity:	Carmine - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 1390-65-4. Not available

Canada

CAS# 1390-65-4 is listed on Canada's DSL List

Canadian WHMIS Classifications: D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 1390-65-4 is not listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 1390-65-4 is not listed on the TSCA Inventory. It is for research and development

use only

Section 16 - Other Information
MSDS Creation Date. 12/12/1997
Revision #6 Date 7/20/2009

Reviewed
Carla Rutherford 2012.08.14
14:23:54 -04'00'

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

Information: generated by thermal decomposition or combustion.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

Autoignition Temperature: Not available

Flash Point: Not available

Explosion Limits Lower: Not available

Explosion Limits Upper: Not available

NFPA Rating: health: 1, flammability: 0; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8

Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions.

Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

Storage: Store in a cool, dry place. Keep from contact with oxidizing materials.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Carmine	none listed	none listed	none listed

OSHA Vacated PELs: Carmine: None listed

Engineering Controls

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: Not available

Odor: none reported

pH: Not available

Vapor Pressure: Negligible.

Vapor Density: Not available

Evaporation Rate: Negligible.

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: 138 - 140 deg C

Decomposition Temperature: Not available

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Carnauba wax No. 1 yellow

Product Number : 243213
Brand : Aldrich

Supplier : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +1 800-325-5832
Fax : +1 800-325-5052
Emergency Phone # (For
both supplier and
manufacturer) : (314) 776-6555

Preparation Information : Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

2. HAZARDS IDENTIFICATION**Emergency Overview****OSHA Hazards**

No known OSHA hazards

Not a dangerous substance according to GHS.

HMIS Classification

Health hazard: 0
Flammability: 0
Physical hazards: 0

NFPA Rating

Health hazard: 0
Fire: 0
Reactivity Hazard: 0

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Ingestion May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Brazil wax

No ingredients are hazardous according to OSHA criteria.

4. FIRST AID MEASURES**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIREFIGHTING MEASURES**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Avoid dust formation. Avoid breathing vapors, mist or gas.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment**Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Immersion protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: > 480 min

Material tested: Dermatriil® (Aldrich Z677272, Size M)

Splash protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: > 30 min

Material tested: Dermatriil® (Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de, test method: EN374

if used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

General industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	chips
Colour	yellow

Safety data

pH	no data available
Melting point/freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

no data available

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION**Acute toxicity****Oral LD50**

no data available

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION**Toxicity**

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)**

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION**OSHA Hazards**

No known OSHA hazards

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Carnauba wax the wax derived from copernicia cerifera, palmae.

CAS-No.
8015-86-9

Revision Date

New Jersey Right To Know Components

Carnauba wax the wax derived from copernicia cerifera, palmae.

CAS-No.
8015-86-9

Revision Date

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information

Copyright 2012 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Material Safety Data Sheet

Version 5.0
 Revision Date 03/01/2013
 Print Date 01/21/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Carrot seed oil

Product Number : W224405

Brand : Aldrich

Supplier : Sigma-Aldrich
 3050 Spruce Street
 SAINT LOUIS MO 63103
 USA

Telephone : +1 800-325-5832

Fax : +1 800-325-5052

Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555

Preparation Information : Sigma-Aldrich Corporation
 Product Safety - Americas Region
 1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Combustible Liquid

GHS Classification

Flammable liquids (Category 3)

GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H226

Flammable liquid and vapour.

Precautionary statement(s)

none

HMS Classification

Health hazard: 0

Flammability: 2

Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 2

Reactivity Hazard: 0

Potential Health Effects

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

Skin

May be harmful if absorbed through skin. May cause skin irritation.

Eyes

May cause eye irritation.

Ingestion

May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component		Concentration
Carrot seed oil		
CAS-No.	8015-88-1	-

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid breathing vapours, mist or gas. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	orange

Safety data

pH	no data available
Melting point/freezing point	no data available
Boiling point	no data available
Flash point	47.2 °C (117.0 °F) - closed cup
Ignition temperature	no data available
Auto-ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	0.911 g/cm ³ at 25 °C (77 °F)
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available

Evaporation rate no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

no data available

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

Skin - rabbit -

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

Synergistic effects
no data available

Additional Information
RTECS: FI0790000

12. ECOLOGICAL INFORMATION

Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 1993 Class: 3 Packing group: III
Proper shipping name: Flammable liquids, n.o.s. (Carrot seed oil)
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
UN number: 1993 Class: 3 Packing group: III EMS-No: F-E, S-E
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Carrot seed oil)
Marine pollutant: No

IATA
UN number: 1993 Class: 3 Packing group: III

Proper shipping name: Flammable liquid, n.o.s. (Carrot seed oil)

15. REGULATORY INFORMATION

OSHA Hazards

Combustible Liquid

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Carrot seed oil

CAS-No.
8015-88-1

Revision Date

New Jersey Right To Know Components

Carrot seed oil

CAS-No.
8015-88-1

Revision Date

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information

Copyright 2013 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Material Safety Data Sheet**D-CARVONE**

(FCC)

03-12701

Date Issued: 2/17/2011

1. Chemical Product and Company Information

Penta International Corp.
50 Okner Parkway
Livingston, NJ 07039

WEB PAGE: WWW.PENTAMFG.COM
E-MAIL: SALES@PENTAMFG.COM

Company Contact: Mark J. Volpe
Emergency Contact: CHEMTREC

Telephone Number: (973)740-2300
Telephone Number: (800)424-9300 24-hrs

Product Name D-CARVONE
Product Code: 03-12701

Molecular Formula: C₁₀H₁₄O

Molecular Weight: 150.22
CAS#: 2244-16-8
FEMA#: 2249

2. Hazardous Ingredient(s)

Contains. SEE ABOVE

3. Physical Properties

Physical State: LIQUID	% Volatile: N/A
Odor: CARAWAY-LIKE, SWEET, WARM	Melting Point (°C): N/A
Color: COLORLESS TO PALE YELLOW	Vapor Density (Air = 1): N/A
Solubility in Water: INSOLUBLE	Refractive Index @ 20C: 1.496
Boiling Point (°C): 231	Water Content: N/A
Vapor Pressure (mm Hg @ 20°C): N / A	Alcohol Content: N / A
Specific Gravity @ 25C (H ₂ O=1.0): 0.950	

4. Physical Hazard Data

Flash Point (°F): 200+	Method Used: CC
L.F.L: N / A	U.F.L: N / A
DOT	NON-REGULATED
IMDG	NON-REGULATED
IATA	NON-REGULATED

Extinguishing Media: Carbon Dioxide, Dry Chemical; Universal Type Foam

Special Fire Fighting Procedures: Evacuate unprotected and untrained personnel. Trained firefighting personnel should be equipped with self-contained breathing apparatus and full protective gear.

Unusual Fire, Explosion and Stability Hazards. NONE KNOWN

Material Safety Data Sheet

D-CARVONE

03-12701

Date Issued: 2/17/2011

5. Health Hazard DataCarcinogenicity:

NTP: NO

OSHA NO

IARC MONOGRAPH: NO

OSHA PEL: NOT ESTABLISHED

ACGIH TLV NOT ESTABLISHED

Acute Toxicity Data:

ORAL LD50: 3.7 MG/KG RAT

DERMAL LD50: 4 MG/KG RABBIT

INHALATION LC50: NOT ESTABLISHED

Health Hazards (Acute and Chronic):

Skin Contact: MAY CAUSE IRRITATION

Inhalation: NOT ESTABLISHED

Eye Contact: MAY CAUSE IRRITATION

Ingestion: NOT ESTABLISHED

Other Effects:

The health hazard information is based on laboratory animal test data for the individual components of this product in their pure form as provided under 29 CFR 1910.1200 (d)(5)(ii). The user should consider the relevancy of this information in a manner consistent with its particular purpose.

6. Emergency First Aid Procedures

Eyes: IMMEDIATELY FLUSH EYES WITH LARGE QUANTITIES OF COLD CLEAN WATER FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN IMMEDIATELY.

Skin: WASH WITH SOAP AND WATER. FLUSH WITH LARGE QUANTITIES OF WATER. IF IRRITATION PERSISTS CALL A PHYSICIAN.

Inhalation: REMOVE TO FRESH AIR AND CALL A PHYSICIAN IF NECESSARY

Ingestion: ADMINISTER WATER OR MILK TO DILUTE. CONTACT A PHYSICIAN OR LOCAL POISON CONTROL CENTER IMMEDIATELY. **DO NOT** INDUCE VOMITING

7. Reactivity Data

This material presents no significant hazard. Hazardous Polymerization will not occur and it will not react violently with water.

Contact with highly reactive chemical oxidants should be avoided. If burned this product will produce carbon monoxide and/or carbon dioxide.

8. Personal Protection

Eyes IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED. IF THE MATERIAL IS TO BE HANDLED IN A MANNER WHERE SPLASHING MAY OCCUR, THE USE OF SPLASH GOGGLES OR FACE SHIELD IS RECOMMEND.

Respiratory: IN WELL VENTILATED AREAS RESPIRATORY PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED, POORLY VENTILATED AREAS THE USE OF NIOSH-APPROVED RESPIRATORY PROTECTION MAYBE REQUIRED OR IF MATERIAL IS RATED TOXIC BY INHALATION

Equipment and Apparel: THE USE OF CHEMICAL RESISTANT GLOVES IS RECOMMENDED. ACCEPTABLE INDUSTRIAL HYGIENE PRACTICES SHOULD BE MAINTAINED. LIMIT EXPOSURE TO PRODUCT WHENEVER POSSIBLE. WASH AFTER ANY CONTACT. THOROUGHLY WASH ANY CONTAMINATED CLOTHING OR SHOES.

Ventilation. VENTILATION MEETING ACGIH STANDARDS SHOULD BE EMPLOYED.

9. Storage and Handling

IT IS RECOMMENDED THAT THIS MATERIAL BE STORED IN TIGHT FULL CONTAINERS IN A COOL, DRY PLACE AWAY FROM LIGHT.

10. Spill, Release and Waste Disposal Procedures

REMOVE ANY SOURCES OF FLAME OR SPARKS. IF IN A CONFINED AREA NIOSH APPROVED RESPIRATORY PROTECTION MAY BE REQUIRED. ABSORB SPILLS ON VERMICULITE OR OTHER SUITABLE ABSORBENT MATERIAL AND REMOVE TO AN APPROVED DISPOSAL CONTAINER. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

11. Regulatory

US FEDERAL

HMIS III: PHYSICAL HAZARD: 1

HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0 PERSONAL PROTECTION: X

TSCA

CAS# 2244-16-8 IS LISTED ON THE TSCA INVENTORY.

HEALTH & SAFETY REPORTING LIST

NONE OF THE CHEMICALS ARE ON THE HEALTH & SAFETY REPORTING LIST.

CHEMICAL TEST RULES

NONE OF THE CHEMICALS IN THIS PRODUCT ARE UNDER A CHEMICAL TEST RULE. SECTION 12B

NONE OF THE CHEMICALS ARE LISTED UNDER TSCA SECTION 12B.

TSCA SIGNIFICANT NEW USE RULE

NONE OF THE CHEMICALS IN THIS MATERIAL HAVE A SNUR UNDER TSCA.

CERCLA HAZARDOUS SUBSTANCES AND CORRESPONDING RQS

NONE OF THE CHEMICALS IN THIS MATERIAL HAVE AN RQ.

SARA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES

NONE OF THE CHEMICALS IN THIS PRODUCT HAVE A TPQ.

SECTION 313 NO CHEMICALS ARE REPORTABLE UNDER SECTION 313.

CLEAN AIR ACT

THIS MATERIAL DOES NOT CONTAIN ANY HAZARDOUS AIR POLLUTANTS.

THIS MATERIAL DOES NOT CONTAIN ANY CLASS 1 OZONE DEPLETORS.

THIS MATERIAL DOES NOT CONTAIN ANY CLASS 2 OZONE DEPLETORS.

CLEAN WATER ACT:

NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS HAZARDOUS SUBSTANCES UNDER THE CWA.

NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS PRIORITY POLLUTANTS UNDER THE CWA.

NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS TOXIC POLLUTANTS UNDER THE CWA.

OSHA.

NONE OF THE CHEMICALS IN THIS PRODUCT ARE CONSIDERED HIGHLY HAZARDOUS BY OSHA.

STATE

CAS# 2244-16-8 IS NOT PRESENT ON STATE LISTS FROM CA, PA, MN, MA, FL, OR NJ.

CALIFORNIA PROP 65

CALIFORNIA NO SIGNIFICANT RISK LEVEL: NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED.

EUROPEAN/INTERNATIONAL REGULATIONS

EUROPEAN LABELING IN ACCORDANCE WITH EC DIRECTIVES

HAZARD SYMBOLS:

NOT AVAILABLE.

RISK PHRASES:

R 36/38 IRRITATING TO SKIN AND EYES.

SAFETY PHRASES:

S 7/8 KEEP CONTAINER TIGHTLY CLOSED AND DRY

S 16 KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING

S 24/25 AVOID CONTACT WITH SKIN AND EYES.

S 37 WEAR SUITABLE GLOVES

S 39 WEAR EYE/FACE PROTECTION

WGK (WATER DANGER/PROTECTION)

CAS# 2244-16-8

CANADA - DSL/NDSL

CAS# 2244-16-8

CANADA - WHMIS

WHMIS: NOT AVAILABLE.

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CONTROLLED PRODUCTS REGULATIONS AND THE MSDS CONTAINS ALL OF THE INFORMATION REQUIRED BY THOSE REGULATIONS.

Material Safety Data Sheet

D-CARVONE

03-12701

Date Issued: 2/17/2011

12. DisclaimerMaterial Safety Data Sheet prepared by: **Penta**

The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in this MSDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.



Penta International Corporation

50 Okner Parkway Livingston, NJ 07039-1604 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	CHAMOMILE OIL ROMAN
Product Number	03-18432
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Skin irritation (Category 2)

GHS Label elements, including precautionary statements



Signal word	Warning
Hazard statement(s)	
H315	Causes skin irritation.
Precautionary statement(s)	
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves.
P302 P352	IF ON SKIN: Wash with plenty of soap and water.
P321	Specific treatment (see supplemental first aid instructions on this label).
P332 P313	If skin irritation occurs: Get medical advice/ attention.

P362

Take off contaminated clothing and wash before reuse.

HMIS Classification

Health hazard	1
Flammability	2
Physical hazards	1

NFPA Rating

Health hazard	1
Fire	2
Reactivity Hazard	0

Potential Health Effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	May cause eye irritation.
Ingestion	May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula	N/A		
Molecular Weight	N/A		
CAS-No	EC-No	Index-No.	Concentration
8015-92-7	N/A		

4. FIRST-AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	Pale yellow to yellow

Safety data

pH	no data available
Melting point	no data available
Boiling point	no data available
Flash point	143 °F
Ignition temperature	no data available
Autoignitiontemperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available

Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	0.890
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odor	WARM, SPICY, HERBACEOUS
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

no data available

Hazardous decomposition products

no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50- RAT -> 5,000 mg/kg

Inhalation LC50 -no data available

Dermal LD50 - RABBIT ->5,000 mg/kg

Skin corrosion/irritation

Skin-rabbit - Skin irritation

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin Causes skin irritation.

Eyes

Causes eye irritation.

Synergistic effects

No data available.

Additional Information

RTECS: FL7181000

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards

Irritant

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Oils, chamomile

CAS-No.

8015-92-7

Revision Date

New Jersey Right to Know Components

Oils, chamomile

CAS-No.

8015-92-7

Revision Date

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Revision Date: 11/01/2020

Print Date: 4/01/2022



Penta International Corporation

50 Okner Parkway Livingston, NJ 07039-1604 | Tel. (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail. sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **CHLOROPHYLL UNCOPPERED IN VEGETABLE OIL**

Product Number 03-22301

Brand Penta

Identified Uses Manufacture of substances

Company Penta International Corporation
50 Okner Parkway
Livingston NJ 07039-1604 U.S.A.

Telephone (973)740-2300

Fax (973)740-1839

Emergency Phone (800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4)
Skin Corrosion / Irritation (Category 2)
Sensitisation, Skin (Category 1)
Serious Eye Damage / Eye Irritation (Category 2B)
Acute, toxicity, Inhalation (Category 5)

GHS Label elements, including precautionary statements



Pictogram:

Signal word	Warning
Hazard statement(s)	
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H320	Causes eye irritation

H333	May be harmful if Inhaled
Precautionary statement(s)	
P102	Keep out of reach of children.
P103	Read label before use.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves, protective clothing, eye and face protection.
P301, P312	IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P302, P352	IF ON SKIN wash with plenty of soap and water.
P304, P340	IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
P305, P351, P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P311	Call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P332, P313	IF SKIN irritation occurs: Get medical advice/attention.
P333, P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P337, P313	If eye irritation persists, get medical attention.
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P403, P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.
P505	Consult SDS before using material.

Potential Health Effects

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

Skin

May be harmful if absorbed through skin. May cause skin irritation

Eyes

May cause eye irritation.

Ingestion

May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYM

N/A

Formula		N/A	
Molecular Weight		N/A	
CAS-No	EC-No	Index-No.	Concentration
1406-65-1	215-800-7	N/A	N/A

4. FIRST-AID MEASURES

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid breathing vapours, mist or gas.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form LIQUID
Colour OLIVE GREEN TO DARK GREEN

Safety data

pH no data available
Melting point (°C) no data available
Boiling point (°C) no data available
Flash point (°F) Closed cup >200
Ignition temperature no data available
Autoignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Vapour pressure (mm Hg @20 °C) no data available
Density @25 °C no data available
Water solubility INSOLUBLE
Partition coefficient:
n-octanol/water no data available
Relative vapour density no data available
Odor CHARACTERISTIC
Odour Threshold no data available
Evaporation rate no data available

10. STABILITY AND REACTIVITY**Chemical stability**

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50 -no data available

Inhalation LC50 -no data available

Dermal LD50 -no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin May cause skin irritation.

Eyes

May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods.

IMDG

Not dangerous goods.

IATA

Not dangerous goods.

15. REGULATORY INFORMATION

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA hazards

Massachusetts Right To Know Component

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Component

No components are subject to the Pennsylvania Right to Know Act.

New Jersey Right To Know Component

No components are subject to the New Jersey Right to Know Act.

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Revision Date: 11/01/2020

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SAFETY DATA SHEET
C-013

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name CINNAMYL ALCOHOL 2.0% pet
Article Number C-013

Applications Diagnosis of contact allergy.

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

(Cinnamic alcohol)

2. HAZARD IDENTIFICATION

Health hazards
The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy
Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure
Dermal irritation.

Medical conditions aggravated by exposure
Dermatitis

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
CINNAMYL ALCOHOL	104-54-1	2.0%	Acute tox. Oral 4, Skin irrit. 2, Eye irrit. 2, Resp. sensit. 1; H302, H315, H319, H334

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
CINNAMYL ALCOHOL	104-54-1	2.0%	Xn; R22, R43, R36/38

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

Emergency and first aid procedures
Obtain medical attention.

5. FIRE-FIGHTING MEASURES*



CHEMOTECHNIQUE DIAGNOSTICS

Suitable extinguish media

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available.
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only

10. STABILITY AND REACTIVITY

Incompability

May react with strong oxidizing agents.



Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides

Hazardous polymerization

Will not occur

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Acute tox. Oral 4	Acute toxicity, Oral (Category 4)
Skin irrit. 2	Skin irritation (Category 2)
Eye irrit. 2	Eye irritation (Category 2)
Resp. sensit. 1	Respiratory sensitization (Category 1)
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
Xn	Harmful
R22	Harmful if swallowed
R43	May cause sensitization by skin contact
R36/38	Irritating to eyes and skin

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



SAFETY DATA SHEET
C-014

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name **CINNAMAL 1.0% pet**
 Article Number **C-014**

Applications **Diagnosis of contact allergy.**

Manufacturer **Chemotechnique Diagnostics AB
 Modemgatan 9
 SE-235 39 Vellinge**

Telephone **+46 (0) 40 466 077 (Monday-Friday 8.00-16.00)**
 Fax **+46 (0) 40 466 700**

2. HAZARD IDENTIFICATION

Health hazards
 The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy
 Localized dermal allergic reaction may occur at test site

Signs and symptom of exposure
 Dermal irritation.

Medical conditions aggravated by exposure
 Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	99.0%	-
CINNAMAL	104-55-2	1.0%	Skin irrit. 2, Eye irrit. 2, Skin sensit. 1, Spec. targ. org. tox. - single exp. 3; H315, H317, H319, H335

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	99.0%	-
CINNAMAL	104-55-2	1.0%	Xi, R36/37/38, R43

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

Emergency and first aid procedures
 Obtain medical attention.

5. FIRE-FIGHTING MEASURES*



CHEMOTECHNIQUE DIAGNOSTICS

Suitable extinguish media

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite.
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available.
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only

10. STABILITY AND REACTIVITY

Incompatibility

May react with strong oxidizing agents.



CHEMOTECHNIQUE DIAGNOSTICS

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides

Hazardous polymerization

Will not occur

11. TOXICOLOGICAL INFORMATION

No data available

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS**Waste disposal method**

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION**Text of H-statements and R-phrases mentioned in Section 3**

Skin irrit. 2	Skin irritation (Category 2)
Eye irrit. 2	Eye irritation (Category 2)
Skin sensit. 1	Skin sensitization (Category 1)
Spec. targ. org. tox. - single exp 3	Specific target organ toxicity - single exposure (Category 3)
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H335	May cause respiratory irritation
Xi	Irritant
R36/37/38	Irritating to eyes, respiratory system and skin
R43	May cause sensitization by skin contact

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



Penta International Corporation

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www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	CINNAMON BARK OIL
Product Number	03-25590
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 4)
Acute toxicity, Oral (Category 5)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Skin sensitisation (Category 1)
Specific target organ toxicity - single exposure (Category 3)

GHS Label elements, including precautionary statements

Pictogram:



Signal word	Warning
Hazard statement(s)	
H227	Combustible liquid.
H303	May be harmful if swallowed.

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Precautionary statement(s)	
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302 P352	IF ON SKIN: Wash with plenty of soap and water.
P304 P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 P351 P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/ physician if you feel unwell.
P321	Specific treatment (see supplemental first aid instructions on this label).
P333 P313	If skin irritation or rash occurs: Get medical advice/ attention.
P337 P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P370 P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 P233	Store in a well-ventilated place. Keep container tightly closed.
P403 P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard	1
Flammability	2
Physical hazards	1

NFPA Rating

Health hazard	1
Fire	2
Reactivity Hazard	0

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYM	Cinnamomum		
	Cassia oil		
Formula	No data available		
Molecular Weight	No data available		
CAS-No.	EC-No	Index-No.	Concentration
8015-91-6			

4. FIRST-AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.



Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	LIQUID
Colour	COLORLESS TO PALE YELLOW

Safety data

pH	no data available
Melting point (°C)	no data available
Boiling point (°C)	249
Flash point (°F) Closed cup	188
Ignition temperature	no data available
Autoignitiontemperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	1.015
Water solubility	SLIGHT
Partition coefficient: n-octanol/water	no data available

Relative vapour density	no data available
Odor	CINNAMON
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

Other decomposition products - no data available.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

LD50 Oral - rat - 2,650 mg/kg

Inhalation LC50

no data available

Dermal LD50

LD50 Dermal - rabbit - > 5,000 mg/kg

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

May cause allergic skin reaction.

Germ cell mutagenicity

no data available

Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin. Causes skin irritation.

Eyes

Causes eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

RTECS: FL6340000

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods.

IMDG

Not dangerous goods.

IATA

Not dangerous goods.

15. REGULATORY INFORMATION

OSHA Hazards

Combustible Liquid, Skin sensitiser, Irritant.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard.

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Cinnamon leaf oil, madagascar	8015-91-6	

New Jersey Right To Know Components

	CAS-No.	Revision Date
Cinnamon leaf oil, madagascar	8015-91-6	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Material Safety Data Sheet

CITRAL, NATURAL - 03-29400

Page: 1 of 5

Date Issued: 11/14/09

1. Chemical Product and Company Information

Penta International Corp.
50 Okner Parkway
Livingston, NJ 07039

WEB PAGE: WWW.PENTAMFG.COM
E-MAIL: SALES@PENTAMFG.COM

Company Contact: Mr. Mark J. Volpe
Emergency Contact: CHEMTREC

Telephone Number: (973)740-2300
Telephone Number: (800)424-9300 24-hrs

Product Name: CITRAL, NATURAL
Product Code: 03-29400

Molecular Formula: C₁₀H₁₆O

Molecular Weight: 152.24
CAS#: 5392-40-5
FEMA#: 2303

2. Hazardous Ingredient(s)

Contains: SEE ABOVE

3. Physical Properties

Physical State: LIQUID
Odor: LEMON
Color: COLORLESS TO PALE YELLOW
Solubility in Water: INSOLUBLE
Boiling Point (°C): 207
Vapor Pressure (mm Hg @ 20°C): 0.2
Specific Gravity @ 25°C (H₂O=1.0): 0.890

% Volatile: N/A
Melting Point (°C): N/A
Vapor Density (Air = 1): 5.0
Refractive Index @ 20°C: 1.485
Water Content: N/A
Alcohol Content: N/A

4. Physical Hazard Data

Flash Point (°F): 195
L.F.L. N/A
DOT
IMDG (OCEAN)
IATA (AIR)
Extinguishing Media: Carbon Dioxide; Dry Chemical; Universal Type Foam

Method Used: CC
U.F.L.: N/A
NON-REGULATED
NON-REGULATED
NON-REGULATED

Special Fire Fighting Procedures. Evacuate unprotected and untrained personnel. Trained firefighting personnel should be equipped with self-contained breathing apparatus and full protective gear.

Unusual Fire, Explosion and Stability Hazards: NONE KNOWN.

Material Safety Data Sheet

CITRAL, NATURAL 03-29400

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Date Issued: 11/14/09

5. Health Hazard DataCarcinogenicity:

NTP: NO

OSHA: NO

IARC MONOGRAPH: NO

OSHA PEL: NOT ESTABLISHED

ACGIH TLV: NOT ESTABLISHED

Acute Toxicity Data:

ORAL LD50: NOT ESTABLISHED

DERMAL LD50: NOT ESTABLISHED

INHALATION LC50: NOT ESTABLISHED

Health Hazards (Acute and Chronic).

Skin Contact: MAY CAUSE IRRITATION

Inhalation: NOT ESTABLISHED

Eye Contact: MAY CAUSE IRRITATION

Ingestion: NOT ESTABLISHED

Other Effects:

The health hazard information is based on laboratory animal test data for the individual components of this product in their pure form as provided under 29 CFR 1910.1200 (d)(5)(ii). The user should consider the relevancy of this information in a manner consistent with its particular purpose.

6. Emergency First Aid Procedures

Eyes: IMMEDIATELY FLUSH EYES WITH LARGE QUANTITIES OF COLD CLEAN WATER FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN IMMEDIATELY

Skin: WASH WITH SOAP AND WATER. FLUSH WITH LARGE QUANTITIES OF WATER. IF IRRITATION PERSISTS CALL A PHYSICIAN.

Inhalation: REMOVE TO FRESH AIR AND CALL A PHYSICIAN IF NECESSARY

Ingestion: ADMINISTER WATER OR MILK TO DILUTE. CONTACT A PHYSICIAN OR LOCAL POISON CONTROL CENTER IMMEDIATELY. **DO NOT** INDUCE VOMITING.

7. Reactivity Data

This material presents no significant hazard. Hazardous Polymerization will not occur and it will not react violently with water.

Contact with highly reactive chemical oxidants should be avoided. If burned this product will produce carbon monoxide and/or carbon dioxide.

Material Safety Data Sheet

CITRAL, NATURAL 03-29400

Page: 3 of 5

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8. Personal Protection

Eyes: IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED IF THE MATERIAL IS TO BE HANDLED IN A MANNER WHERE SPLASHING MAY OCCUR, THE USE OF SPLASH GOGGLES OR FACE SHIELD IS RECOMMEND

Respiratory: IN WELL VENTILATED AREAS RESPIRATORY PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED, POORLY VENTILATED AREAS THE USE OF NIOSH-APPROVED RESPIRATORY PROTECTION MAYBE REQUIRED OR IF MATERIAL IS RATED TOXIC BY INHALATION.

Equipment and Apparel. THE USE OF CHEMICAL RESISTANT GLOVES IS RECOMMENDED ACCEPTABLE INDUSTRIAL HYGIENE PRACTICES SHOULD BE MAINTAINED. LIMIT EXPOSURE TO PRODUCT WHENEVER POSSIBLE. WASH AFTER ANY CONTACT. THOROUGHLY WASH ANY CONTAMINATED CLOTHING OR SHOES.

Ventilation: VENTILATION MEETING ACGIH STANDARDS SHOULD BE EMPLOYED.

9. Storage and Handling

IT IS RECOMMENDED THAT THIS MATERIAL BE STORED IN TIGHT FULL CONTAINERS IN A COOL, DRY PLACE AWAY FROM LIGHT. CONSULT STORAGE SHEET FOR FULL DETAILS.

10. Spill, Release and Waste Disposal Procedures

REMOVE ANY SOURCES OF FLAME OR SPARKS IF IN A CONFINED AREA NIOSH APPROVED RESPIRATORY PROTECTION MAY BE REQUIRED ABSORB SPILLS ON VERMICULITE OR OTHER SUITABLE ABSORBENT MATERIAL AND REMOVE TO AN APPROVED DISPOSAL CONTAINER. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS

11. Regulatory

US FEDERAL

HMIS III: PHYSICAL HAZARD: 1

HEALTH: 1 FLAMMABILITY: 2 REACTIVITY: 0 PERSONAL PROTECTION X
TSCA

CAS# 5392-40-5 IS LISTED ON THE TSCA INVENTORY

HEALTH & SAFETY REPORTING LIST

NONE OF THE CHEMICALS ARE ON THE HEALTH & SAFETY REPORTING LIST.

CHEMICAL TEST RULES

NONE OF THE CHEMICALS IN THIS PRODUCT ARE UNDER A CHEMICAL TEST RULE.

SECTION 12B

NONE OF THE CHEMICALS ARE LISTED UNDER TSCA SECTION 12B.

TSCA SIGNIFICANT NEW USE RULE

NONE OF THE CHEMICALS IN THIS MATERIAL HAVE A SNUR UNDER TSCA.

CERCLA HAZARDOUS SUBSTANCES AND CORRESPONDING RQS

NONE OF THE CHEMICALS IN THIS MATERIAL HAVE AN RQ.

Material Safety Data Sheet

CITRAL, NATURAL 03-29400

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SARA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES

NONE OF THE CHEMICALS IN THIS PRODUCT HAVE A TPQ

SECTION 313 NO CHEMICALS ARE REPORTABLE UNDER SECTION 313.

CLEAN AIR ACT:

THIS MATERIAL DOES NOT CONTAIN ANY HAZARDOUS AIR POLLUTANTS

THIS MATERIAL DOES NOT CONTAIN ANY CLASS 1 OZONE DEPLETORS.

THIS MATERIAL DOES NOT CONTAIN ANY CLASS 2 OZONE DEPLETORS.

CLEAN WATER ACT:

NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS HAZARDOUS SUBSTANCES UNDER THE CWA.

NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS PRIORITY POLLUTANTS UNDER THE CWA

NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS TOXIC POLLUTANTS UNDER THE CWA.

OSHA:

NONE OF THE CHEMICALS IN THIS PRODUCT ARE CONSIDERED HIGHLY HAZARDOUS BY OSHA.

STATE

CAS# 5392-40-5 IS NOT PRESENT ON STATE LISTS FROM CA, PA, MN, MA, FL, OR NJ.

CALIFORNIA PROP 65

CALIFORNIA NO SIGNIFICANT RISK LEVEL: NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED.

EUROPEAN/INTERNATIONAL REGULATIONS

EUROPEAN LABELING IN ACCORDANCE WITH EC DIRECTIVES

HAZARD SYMBOLS:

NOT AVAILABLE.

RISK PHRASES:

R 36/38 IRRITATING TO SKIN AND EYES.

SAFETY PHRASES:

S 24/25 AVOID CONTACT WITH SKIN AND EYES.

WGK (WATER DANGER/PROTECTION)

CAS# 5392-40-5

CANADA - DSL/NDSL

CAS# 5392-40-5 IS LISTED ON CANADA'S DSL LIST.

CANADA - WHMIS

THIS PRODUCT HAS A WHMIS CLASSIFICATION OF D2B.

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CONTROLLED PRODUCTS REGULATIONS AND THE MSDS CONTAINS ALL OF THE INFORMATION REQUIRED BY THOSE REGULATIONS

12. Disclaimer

Material Safety Data Sheet prepared by: **Penta**

The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in this MSDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.

Material Safety Data Sheet

Citronellal (pract), 93% (gc)

ACC# 99408

Section 1 - Chemical Product and Company Identification

MSDS Name: Citronellal (pract), 93% (gc)

Catalog Numbers: AC405290000, AC405291000, AC405295000

Synonyms: 3,7-Dimethyl-6-octenal; Beta citronellal; 2,3-Dihydrocitral

Company Identification:

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
106-23-0	l-Citronella	93	203-376-6

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless to slight yellow liquid. Flash Point: 75 deg C.

Caution! Causes respiratory tract irritation. Causes eye and skin irritation. **Combustible liquid and vapor.** The toxicological properties of this material have not been fully investigated.

Target Organs: No data found.

Potential Health Effects

Eye: Contact may cause irritation, tearing, and burning pain.

Skin: Causes skin irritation. May cause burning sensation on the face.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: Vapor or mist is irritating to the mucous membranes and upper respiratory tract. Inhalation of vapors may cause a burning sensation, bronchial constriction, choking, and/or coughing.

Chronic: No information found.

Section 4 - First Aid Measures

Eye: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Combustible liquid. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. This material is lighter than water and insoluble in water. The fire could easily be spread by the use of water in an area where the water cannot be contained.

Flash Point: 75 deg C (167.00 deg F)

Autoignition Temperature: Not applicable.

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 0; Flammability: 2; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Cover with sand, dry lime or soda ash and place in a closed container for disposal. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash

facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
l-Citronella	none listed	none listed	none listed

OSHA Vacated PELs: l-Citronella: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: colorless to slight yellow

Odor: lemon-citronella-rose odor.

pH: Not available.

Vapor Pressure: 0.230 mm Hg @ 20 deg C

Vapor Density: 5.31

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 89 deg C

Freezing/Melting Point: Not available.

Decomposition Temperature: Not available.

Solubility: Insoluble.

Specific Gravity/Density: .8510g/cm³

Molecular Formula: C₁₀H₁₈O

Molecular Weight: 154.25

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat, strong oxidants.

Incompatibilities with Other Materials: Strong oxidizing agents, strong acids, strong bases.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, acrid smoke and fumes.

Hazardous Polymerization: Has not been reported

Section 11 - Toxicological Information

EC#:

CAS# 106-23-0: RH2140000

LD50/LC50:

CAS# 106-23-0:

Oral, rat: LD50 = 2420 mg/kg;

Skin, rabbit: LD50 = >2500 mg/kg;

Oral, rat :LD50 >5 gm/kg;; Skin, rabbit :LD50 >2500 mg/kg.

Carcinogenicity:

CAS# 106-23-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: No information found

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.

Environmental: No biodegradation data were available but the chemical structure of citronellal would suggest that biodegradation in soil or water would be important. Will have moderate mobility in soil and volatilization from moist surfaces is important. May not adsorb to suspended solids and sediment in water. May volatilize from water surfaces. Will bioconcentrate in aquatic organisms. Will exist in the vapor phase in the ambient atmosphere. Degraded in the atmosphere by reaction with photochemically produced hydroxyl radicals and by reaction with ozone.

Physical: Estimated half-lives for a model river and model lake are 7.8 hours and 6.2 days, respectively. Half-life for atmospheric degradation by photochemically produced hydroxy radicals: about 3.2 hours. Half-life for reaction with ozone: about 38 minutes.

Other: None.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 106-23-0 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 106-23-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Not available.

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 106-23-0: 1

Canada - DSL/NDSL

CAS# 106-23-0 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of B3, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 6/10/1999

Revision #4 Date: 4/27/2007

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.

Material Safety Data Sheet

Clove Oil

ACC# 05214

Section 1 - Chemical Product and Company Identification

MSDS Name: Clove Oil**Catalog Numbers:** S79970, S79961**Synonyms:** Oil of clove**Company Identification:**

Fisher Scientific

1 Reagent Lane

Fair Lawn, NJ 07410

For information, call: 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
8000-34-8	Clove oil		unlisted

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless to light yellow liquid.

Caution! May cause eye and skin irritation. May cause respiratory and digestive tract irritation.**Target Organs:** None.

Potential Health Effects

Eye: May cause eye irritation.**Skin:** May cause skin irritation.**Ingestion:** May cause irritation of the digestive tract.**Inhalation:** May cause respiratory tract irritation.**Chronic:** No information found.

Section 4 - First Aid Measures

First Aid: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower

eyelids. Get medical aid.

Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. Get medical aid if cough or other symptoms appear.

Notes to Physician: Treat symptomatically and supportively.

Antidote: None reported.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

Flash Point: Nonflammable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: Not published.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

Section 7 - Handling and Storage

Handling: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Use with adequate ventilation. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Clove oil	none listed	none listed	none listed

OSHA Vacated PELs: Clove oil: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: colorless to light yellow

Odor: none reported

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: >1 (ether=1)

Viscosity: Not available.

Boiling Point: 250 deg C

Freezing/Melting Point: Not available.

Decomposition Temperature: Not available.

Solubility: Insoluble in water.

Specific Gravity/Density: 1.0

Molecular Formula: Variable

Molecular Weight: Not available.

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Strong oxidants.

Incompatibilities with Other Materials: None reported.

Hazardous Decomposition Products: Acrid smoke and fumes.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 8000-34-8: GF6890000; GF6900000; GF6910000

LD50/LC50:

CAS# 8000-34-8:

Draize test, rabbit, skin: 500 mg/24H Severe;

Oral, rat: LD50 = 1370 mg/kg;

Oral, rat: LD50 = 2650 mg/kg;

Oral, rat: LD50 = 2020 mg/kg;

Skin, rabbit: LD50 = 1200 mg/kg;

Skin, rabbit: LD50 = 5 gm/kg;
 Skin, rabbit: LD50 = >5 gm/kg;

Carcinogenicity:

CAS# 8000-34-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Mutagenicity: Mutation data reported.

Neurotoxicity: No data available.

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 8000-34-8 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313 No chemicals are reportable under Section 313.**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 8000-34-8 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations**European Labeling in Accordance with EC Directives****Hazard Symbols:**

Not available.

Risk Phrases:**Safety Phrases:****WGK (Water Danger/Protection)**

CAS# 8000-34-8: No information available.

Canada - DSL/NDSL

CAS# 8000-34-8 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of Not controlled..

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 12/12/1997

Revision #5 Date: 10/25/2007

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular

purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.



CHEMOTECHNIQUE DIAGNOSTICS

Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name Cobalt(II)chloride hexahydrate 1.0% pet
Article Number C-017A
Applications Diagnosis of contact allergy.
Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge
Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION

Health hazards

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy. Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation.

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	99.0%	-
Cobalt(II)chloride hexahydrate	7791-13-1	1.0%	Acute aq. tox. 1, Chron aq. Tox. 1, Germ cellmutagen. 2, Repr. Tox. 1B; H302, H317, H334, H341, H350i, H360F, H410

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	99.0%	-
Cobalt(II)chloride hexahydrate	7791-13-1	1.0%	T, N; R49, R60, R22, R68, R42/43, R50/53

4. FIRST AID MEASURES

Emergency and first aid procedures

Obtain medical attention.

5. FIRE-FIGHTING MEASURES*

Suitable extinguish media

CO2, powder or water spray Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8 C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Pink Semi-solid
Odour	Odourless
Melting point*	50-55° C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite.
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available.
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only

10. STABILITY AND REACTIVITY

Incompability

May react with strong oxidizing agents.

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

No data available

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS**Waste disposal method**

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION**Text of H-statements and R-phrases mentioned in Section 3**

Carcin. Inhal. 1B	Carcinogenicity, Inhalation (Category 1B)
Acute tox. Oral 4	Acute toxicity, Oral (Category 4)
Resp. sensit. 1	Respiratory sensitization (Category 1)
Skin sensit. 1	Skin sensitization (Category 1)
Acute aq. tox. 1	Acute aquatic toxicity (Category 1)
Chron. aq. tox. 1	Chronic aquatic toxicity (Category 1)
Germ cell mutagen. 2	Germ cell mutagenicity (Category 2)
Repr. tox. 1B	Reproductive toxicity (Category 1B)
H302	Harmful if swallowed
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H360F	May damage fertility.
H410	Very toxic to aquatic life with long lasting effects.
T	Toxic
N	Dangerous for the environment
R49	May cause cancer by inhalation.
R60	May impair fertility
R22	Also harmful if swallowed
R68	Possible risk of irreversible effects

R42/43

May cause sensitization by inhalation and skin contact.

R50/53

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



Penta International Corporation

50 Okner Parkway Livingston, NJ 07039-1604 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	COUMARIN
Product Number	03-49800
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 3)

Acute aquatic toxicity (Category 3)

Chronic aquatic toxicity (Category 3)

GHS Label elements, including precautionary statements



Pictogram:

Signal word

Danger

Hazard statement(s)

H301

Toxic if swallowed.

H412

Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P264

Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.
 P273 Avoid release to the environment.
 P301 P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
 P321 Specific treatment (see supplemental first aid instructions on this label).
 P330 Rinse mouth.
 P405 Store locked up.
 P501 Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard 1
Flammability 1
Physical hazards 0

NFPA Rating

Health hazard 1
Fire 1
Reactivity Hazard 0

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Ingestion Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYM	1,2-Benzopyrone 1-Benzopyran-2-one		
Formula	C9 H6 O2		
Molecular Weight	146.15 g/mol		
CAS-No	EC-No	Index-No.	Concentration
91-64-5	202-086-7		

4. FIRST-AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99(US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	SOLID
Colour	WHITE

Safety data

pH	no data available
Melting point (°C)	68
Boiling point (°C)	297
Flash point (°F) Closed cup	>200
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	0.935
Water solubility	SLIGHT
Partition coefficient: n-octanol/water	no data available
Relative vapour density	5.1
Odor	SWEET, FRESH HAY-LIKE, SLIGHTLY SPICY
Odour Threshold	no data available

Evaporation rate no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents, Strong acids, Strong bases

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

LD50 Oral - rat - 293 mg/kg

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion

Toxic if swallowed.

Skin

May be harmful if absorbed through skin. May cause skin irritation.

Eyes

May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

RTECS: GN4200000

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish LC50 - *Poecilia reticulata* (guppy) - 56 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates LC50 - *Daphnia magna* (Water flea) - 13.5 mg/l - 48 h

Persistence and degradability

no data available

Bioaccumulative potential

Bioaccumulation *Leuciscus idus melanotus*-3 d
Bioconcentration factor (BCF): < 10

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods.

IMDG

Not dangerous goods.

IATA

Not dangerous goods.

15. REGULATORY INFORMATION

OSHA Hazards

Target Organ Effect, Toxic by ingestion

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Coumarin	CAS-No.	Revision Date
	91-64-5	

New Jersey Right To Know Components

Coumarin	CAS-No.	Revision Date
	91-64-5	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES**Safety Data Sheet prepared by: Penta**

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Revision Date: 11/01/2020

Print Date: 4/01/2022



SAFETY DATA SHEET

D-042

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name **DODECYL GALLATE 0.25% pet**
Article Number **D-042**

Applications Diagnosis of contact allergy.

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8 00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION**Health hazards**

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy. Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation.

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]**

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	99.75%	-
DODECYL GALLATE	1166-52-5	0.25%	Skin sensit. 1, H317

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	99.75%	-
DODECYL GALLATE	1166-52-5	0.25%	Xi, R43

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES**Emergency and first aid procedures**

Obtain medical attention.

5. FIRE-FIGHTING MEASURES***Suitable extinguish media**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.



CHEMOTECHNIQUE DIAGNOSTICS

For safety reasons unsuitable extinguishing agents
Water with full jet.

Special protective equipment for fire-fighters
Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled
Contain and place in a closed container

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage
Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection
Not required.

Ventilation
Local exhaust.

Protective gloves
Disposal gloves.

Eye protection
Not required with normal use.

Work/Hygienic practices
Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite
Danger of explosion*	Product does not present an explosion hazard
Density*	No data available.
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only

10. STABILITY AND REACTIVITY

Incompatibility
May react with strong oxidizing agents.

Stability
Stable at recommended storage conditions.



Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Skin sensit. 1	Skin sensitization (Category 1)
H317	May cause an allergic skin reaction
Xi	Irritant
R43	May cause sensitization by skin contact.

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.

Material Safety Data Sheet

ETHYL ACETATE 05-10200

Page: 1 of 5

Date Issued: 2/16/05

1. Chemical Product and Company Information

Penta International Corp.
50 Okner Parkway
Livingston, NJ 07039

WEB PAGE: WWW.PENTAMFG.COM
E-MAIL: SALES@PENTAMFG.COM

Company Contact: Mr. Mark J. Volpe
Emergency Contact: CHEMTREC

Telephone Number: (973)740-2300
Telephone Number: (800)424-9300 24-hrs

Product Name: ETHYL ACETATE
Product Code: 05-10200

Molecular Formula: C4 H8 O2

Molecular Weight: 88.11
CAS#: 141-78-6
FEMA#: 2414

2. Hazardous Ingredient(s)

Contains: SEE ABOVE

3. Physical Properties

Physical State: LIQUID	% Volatile: N/A
Odor: SWEET, ESTER	Melting Point (°C): -83
Color: COLORLESS TO PALE YELLOW	Vapor Density (Air = 1): 3.0
Solubility in Water: MODERATE	Refractive Index @ 20C: N/A
Boiling Point (°C): 78	Water Content: N/A
Vapor Pressure (mm Hg @ 20°C): 99	Alcohol Content: N/A
Specific Gravity @ 25C (H2O=1.0): 0.902	

4. Physical Hazard Data

Flash Point (°F): 24	Method Used: CC
L.F.L.: 2.02%	U.F.L.: 10.7%
DOT	ETHYL ACETATE 3,UN1173,PGII
IMDG (OCEAN)	ETHYL ACETATE 3,UN1173,PGII
IATA (AIR)	ETHYL ACETATE 3,UN1173,PGII

Extinguishing Media: Carbon Dioxide, Dry Chemical; Universal Type Foam

Special Fire Fighting Procedures: Evacuate unprotected and untrained personnel. Trained firefighting personnel should be equipped with self-contained breathing apparatus and full protective gear.

Unusual Fire, Explosion and Stability Hazards: VAPORS MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND FLASH BACK

Material Safety Data Sheet

ETHYL ACETATE 05-10200

(NF/EC)

Page: 2 of 5

Date Issued: 2/16/05

5. Health Hazard DataCarcinogenicity:

NTP: NO

OSHA: NO

IARC MONOGRAPH: NO

OSHA PEL: 400 ppm TWA; 1400 mg/m³ TWA

ACGIH TLV: 400 PPM TWA

NIOSH 400 PPM TWA; 1400 mg/m³ TWA 2000 PPM IDLHAcute Toxicity Data:

ORAL LD50: 5.60 g/kg RAT

DERMAL LD50: >20 ml/kg RABBIT

INHALATION LC50: 16,000 ppm/6hrs RAT

Health Hazards (Acute and Chronic):

Skin Contact: MAY CAUSE IRRITATION

Inhalation: May cause respiratory tract irritation.

Eye Contact: MAY CAUSE IRRITATION

Ingestion: May cause irritation of the digestive tract.

Other Effects:

The health hazard information is based on laboratory animal test data for the individual components of this product in their pure form as provided under 29 CFR 1910 1200 (d)(5)(ii). The user should consider the relevancy of this information in a manner consistent with its particular purpose.

6. Emergency First Aid Procedures

Eyes: IMMEDIATELY FLUSH EYES WITH LARGE QUANTITIES OF COLD CLEAN WATER FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN IMMEDIATELY.

Skin: WASH WITH SOAP AND WATER. FLUSH WITH LARGE QUANTITIES OF WATER. IF IRRITATION PERSISTS CALL A PHYSICIAN.

Inhalation: REMOVE TO FRESH AIR AND CALL A PHYSICIAN IF NECESSARY.

Ingestion: ADMINISTER WATER OR MILK TO DILUTE. CONTACT A PHYSICIAN OR LOCAL POISON CONTROL CENTER IMMEDIATELY. DO NOT INDUCE VOMITING.

7. Reactivity Data

This material presents no significant hazard. Hazardous Polymerization will not occur and it will not react violently with water.

Contact with highly reactive chemical oxidants should be avoided. If burned this product will produce carbon monoxide and/or carbon dioxide.

8. Personal Protection

Eyes: IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED. IF THE MATERIAL IS TO BE HANDLED IN A MANNER WHERE SPLASHING MAY OCCUR, THE USE OF SPLASH GOGGLES OR FACE SHIELD IS RECOMMEND.

Respiratory: IN WELL VENTILATED AREAS RESPIRATORY PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED, POORLY VENTILATED AREAS THE USE OF NIOSH-APPROVED RESPIRATORY PROTECTION MAYBE REQUIRED OR IF MATERIAL IS RATED TOXIC BY INHALATION.

Equipment and Apparel. THE USE OF CHEMICAL RESISTANT GLOVES IS RECOMMENDED. ACCEPTABLE INDUSTRIAL HYGIENE PRACTICES SHOULD BE MAINTAINED LIMIT EXPOSURE TO PRODUCT WHENEVER POSSIBLE WASH AFTER ANY CONTACT. THOROUGHLY WASH ANY CONTAMINATED CLOTHING OR SHOES.

Ventilation. VENTILATION MEETING ACGIH STANDARDS SHOULD BE EMPLOYED.

9. Storage and Handling

IT IS RECOMMENDED THAT THIS MATERIAL BE STORED IN TIGHT FULL CONTAINERS IN A COOL, DRY PLACE AWAY FROM LIGHT. CONSULT STORAGE SHEET FOR FULL DETIALS.

10. Spill, Release and Waste Disposal Procedures

REMOVE ANY SOURCES OF FLAME OR SPARKS. IF IN A CONFINED AREA NIOSH APPROVED RESPIRATORY PROTECTION MAY BE REQUIRED. ABSORB SPILLS ON VERMICULITE OR OTHER SUITABLE ABSORBENT MATERIAL AND REMOVE TO AN APPROVED DISPOSAL CONTAINER. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

11. Regulatory

US FEDERAL

HMS III: PHYSICAL HAZARD. 2

HEALTH 2 FLAMMABILITY: 3 REACTIVITY: 0 PERSONAL PROTECTION: X

TSCA

CAS# 141-78-6 IS LISTED ON THE TSCA INVENTORY.

HEALTH & SAFETY REPORTING LIST

NONE OF THE CHEMICALS ARE ON THE HEALTH & SAFETY REPORTING LIST.

CHEMICAL TEST RULES

CAS# 141-78-6: TEST FOR HEALTH EFFECTS

SECTION 12B

NONE OF THE CHEMICALS ARE LISTED UNDER TSCA SECTION 12B.

TSCA SIGNIFICANT NEW USE RULE

NONE OF THE CHEMICALS IN THIS MATERIAL HAVE A SNUR UNDER TSCA

CERCLA HAZARDOUS SUBSTANCES AND CORRESPONDING RQS

CAS# 141-78-6: 5000 LB FINAL RQ; 2270 KG FINAL RQ

Material Safety Data Sheet

ETHYL ACETATE 05-10200

Page: 4 of 5

Date Issued: 2/16/05

SARA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES

NONE OF THE CHEMICALS IN THIS PRODUCT HAVE A TPQ.

SARA CODES

CAS # 141-78-6 FLAMMABLE.

SECTION 313 NO CHEMICALS ARE REPORTABLE UNDER SECTION 313.**CLEAN AIR ACT:**

THIS MATERIAL DOES NOT CONTAIN ANY HAZARDOUS AIR POLLUTANTS.

THIS MATERIAL DOES NOT CONTAIN ANY CLASS 1 OZONE DEPLETORS.

THIS MATERIAL DOES NOT CONTAIN ANY CLASS 2 OZONE DEPLETORS.

CLEAN WATER ACT:

NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS HAZARDOUS SUBSTANCES UNDER THE CWA.

NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS PRIORITY POLLUTANTS UNDER THE CWA.

NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS TOXIC POLLUTANTS UNDER THE CWA.

OSHA:

NONE OF THE CHEMICALS IN THIS PRODUCT ARE CONSIDERED HIGHLY HAZARDOUS BY OSHA.

STATE

CAS# 141-78-6 CAN BE FOUND ON THE FOLLOWING STATE RIGHT TO KNOW LISTS: CALIFORNIA, NEW JERSEY, PENNSYLVANIA, MINNESOTA, MASSACHUSETTS.

CALIFORNIA PROP 65

CALIFORNIA NO SIGNIFICANT RISK LEVEL: NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED.

EUROPEAN/INTERNATIONAL REGULATIONS**EUROPEAN LABELING IN ACCORDANCE WITH EC DIRECTIVES****HAZARD SYMBOLS: XI F****RISK PHRASES:**

R 11 HIGHLY FLAMMABLE.

R 36 IRRITATING TO EYES.

R 66 REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING

R 67 VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.

SAFETY PHRASES:

S 16 KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING

S 26 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

S 33 TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES.

WGK (WATER DANGER/PROTECTION)

CAS# 141-78-6: 1

CANADA - DSL/NDL

CAS# 141-78-6 IS LISTED ON CANADA'S DSL LIST.

CANADA - WHMIS

THIS PRODUCT HAS A WHMIS CLASSIFICATION OF B2

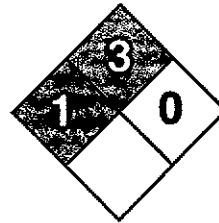
CANADIAN INGREDIENT DISCLOSURE LIST

CAS# 141-78-6 IS LISTED ON THE CANADIAN INGREDIENT DISCLOSURE LIST.

12. Disclaimer

Material Safety Data Sheet prepared by: **Penta**

The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in this MSDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.



Health	2
Fire	3
Reactivity	0
Personal Protection	B

Material Safety Data Sheet

Ethyl Butyrate MSDS

Section 1: Chemical Product and Company Identification

Product Name: Ethyl Butyrate

Catalog Codes: SLE2095

CAS#: 105-54-4

RTECS: ET1660000

TSCA: TSCA 8(b) inventory: Ethyl Butyrate

CI#: Not available.

Synonym: Butanoic acid, ethyl ester; Butyric ether; Ethyl butanoate; Ethyl n-butyrate

Chemical Name: Butyric acid, ethyl ester

Chemical Formula: C6-H12-O2

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: 1-800-901-7247

International Sales: 1-281-441-4400

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Ethyl Butyrate	105-54-4	100

Toxicological Data on Ingredients: Ethyl Butyrate: ORAL (LD50): Acute: 13000 mg/kg [Rat]. 5228 mg/kg [Rabbit]. DERMAL (LD50): Acute: >2000 mg/kg [Rabbit].

Section 3: Hazards Identification

Potential Acute Health Effects:

Hazardous in case of skin contact (irritant). Slightly hazardous in case of skin contact (permeator), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Flammable.

Auto-ignition Temperature: 463°C (865.4°F)

Flash Points: CLOSED CUP: 24°C (75.2°F). OPEN CUP: 29.444°C (85°F).

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances: Highly flammable in presence of open flames and sparks, of heat.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Explosive in presence of open flames and sparks, of heat.

Fire Fighting Media and Instructions:

Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

Special Remarks on Fire Hazards:

When heated to decomposition it emits acrid smoke and irritating fumes. May form explosive mixtures with air. Vapor may travel considerable distance to source of ignition and flash back.

Special Remarks on Explosion Hazards: Vapors may form explosive mixture with air.

Section 6: Accidental Release Measures

Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill:

Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed.

Section 7: Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Avoid contact with skin. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids, alkalis.

Storage:

Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection: Safety glasses. Lab coat. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor: Fruity. Pineapple.

Taste: Sweet.

Molecular Weight: 116.16 g/mole

Color: Colorless.

pH (1% soln/water): Not available.

Boiling Point: 120°C (248°F) - 121 C.

Melting Point: -100.8°C (-149.4°F)

Critical Temperature: 293°C (559.4°F)

Specific Gravity: 0.879 (Water = 1)

Vapor Pressure: 1.7 kPa (@ 20°C)

Vapor Density: 4 (Air = 1)

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: The product is more soluble in oil; log(oil/water) = 1.7

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, diethyl ether.

Solubility:

Soluble in diethyl ether. Partially soluble in cold water. Miscible in alcohol. Water Solubility: Soluble in 150n parts water; 4900 mg/l.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Heat, ignition sources, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, acids, alkalis.

Corrosivity: Not available.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact. Inhalation.

Toxicity to Animals:

Acute oral toxicity (LD50): 5228 mg/kg [Rabbit]. Acute dermal toxicity (LD50): >2000 mg/kg [Rabbit].

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans:

Hazardous in case of skin contact (irritant). Slightly hazardous in case of skin contact (permeator), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: Causes skin irritation which can be moderate. Eyes: May cause eye irritation. Inhalation: Vapor or mist is irritating to the mucous membranes and upper respiratory tract (nose, throat). Over-exposure may cause nausea, headache, vomiting, and may cause central nervous system (CNS) effects and act as a CNS depressant and make you feel dizzy and lightheaded. High levels can make you pass out. Ingestion: May cause irritation of the digestive tract. It may cause nausea, vomiting, and headache. It may also affect behavior/central nervous system (somnolence, coma and other effects similar to that of inhalation).

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: CLASS 3: Flammable liquid.

Identification: : Ethyl Butyrate UNNA: 1180 PG: III

Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information

Federal and State Regulations:

Connecticut hazardous material survey.: Ethyl Butyrate Pennsylvania RTK: Ethyl Butyrate Massachusetts RTK: Ethyl Butyrate
Massachusetts spill list: Ethyl Butyrate New Jersey: Ethyl Butyrate TSCA 8(b) inventory: Ethyl Butyrate

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).

DSCL (EEC):

R10- Flammable. S9- Keep container in a well-ventilated place. S16- Keep away from sources of ignition - No smoking. S33- Take precautionary measures against static discharges.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 3

Reactivity: 0

Personal Protection: b

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 3

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

Section 16: Other Information

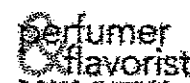
References: Not available.

Other Special Considerations: Not available.

Created: 10/09/2005 05:29 PM

Last Updated: 06/09/2012 12:00 PM

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strawberry glycidate 1 (aldehyde C-16 (so-called))

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Flavor/Fragrance Formulas

ethyl 3-methyl-3-phenyloxirane-2-carboxylate (Click)

CAS Number : 77-83-8

ESIS EC# (EINECS) : 201-061-8

Beilstein Number : 0012299

CoE Number : 6002

XlogP3-AA : 1.90 (est)

Molecular Weight : 206.24118000

Formula : C12 H14 O3

BioActivity Summary : listing

NMR Predictor : Predict

ethyl (2R,3R)-3-methyl-3-phenyloxirane-2-carboxylate (Click)

CAS Number : 77-83-8 (RR)

XlogP3-AA : 1.90 (est)

Molecular Weight : 206.24118000

Formula : C12 H14 O3

NMR Predictor : Predict

ethyl (2R,3S)-3-methyl-3-phenyloxirane-2-carboxylate (Click)

CAS Number : 19464-95-0

XlogP3-AA : 1.90 (est)

Molecular Weight : 206.24118000

Formula : C12 H14 O3

NMR Predictor : Predict

ethyl (2S,3R)-3-methyl-3-phenyloxirane-2-carboxylate (Click)

CAS Number : 70774-46-8

XlogP3-AA : 1.90 (est)

Molecular Weight : 206.24118000

Formula : C12 H14 O3

NMR Predictor : Predict

ethyl (2S,3S)-3-methyl-3-phenyloxirane-2-carboxylate (Click)

CAS Number : 33530-46-0

XlogP3-AA : 1.90 (est)

Molecular Weight : 206.24118000

Formula : C12 H14 O3

NMR Predictor : Predict

Category : flavor and fragrance agents

US / EU / FDA / JECFA / FEMA / FLAVIS / Scholar / Patent Information :

Google Scholar : Search

Google Books : Search

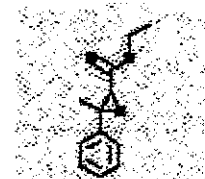
Google Scholar : with word "volatile" Search

Google Scholar : with word "flavor" Search

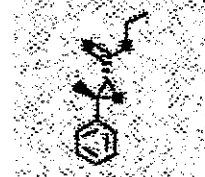
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Perfumer and Flavorist : Search

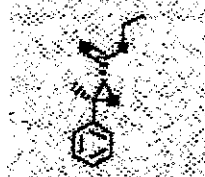
click on the picture(s) below to interact with the 3D model



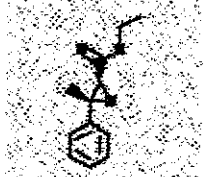
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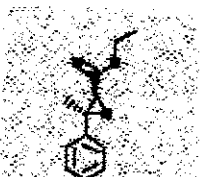
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ethyl (2R,3S)-3-methyl-3-phenyloxirane-2-carboxylate



ethyl (2S,3R)-3-methyl-3-phenyloxirane-2-carboxylate



ethyl (2S,3S)-3-methyl-3-phenyloxirane-2-carboxylate

Google Patents : Search**US Patents :** Search**EU Patents :** Search**IBM Patents :** Obtain**Pubchem Patents:** Search**PubMed :** Search**NCBI :** Search**EU SANCO Food Flavourings :** Search**JECFA Food Flavoring :** 1577 ethyl methylphenylglycidate**FEMA Number :** 2444 ethyl methylphenylglycidate**FDA Mainterm :** 3-METHYL-3-PHENYL GLYCIDIC ACID ETHYL ESTER**FDA Regulation :** FDA PART 182 -- SUBSTANCES GENERALLY RECOGNIZED AS SAFE
Subpart A--General Provisions
Sec. 182.60 Synthetic flavoring substances and adjuvants.**Synonyms :**

aldehyde C-16 (so-called)

2,3-epoxy-3-phenyl butyric acid
ethyl esteralpha,beta-epoxy-beta-methyl
hydrocinnamic acid ethyl
esterethyl 2,3-epoxy-2-methyl
-3-phenyl propionateethyl 2,3-epoxy-3-methyl
-3-phenyl propionateethyl 2,3-epoxy-3-phenyl
butanoateethyl 3-methyl 3-phenyl
glycidateethyl 3-methyl-3-phenyl
glycidateethyl 3-methyl-3-phenyl
oxirane carboxylateethyl 3-methyl
-3-phenyloxirane
-2-carboxylateethyl alpha,beta-epoxy-beta
-methyl hydrocinnamateethyl alpha,beta-epoxy-beta
-methyl phenyl propionate

ethyl methyl phenyl glycidate

ethyl methylphenylglycidate

ethyl(methyl phenyl)glycidate

3-methyl-3-phenyl glycidic
acid ethyl ester3-methyl-3-phenyl oxirane
carboxylic acid ethyl ester

strawberry aldehyde

strawberry glycidate 1

2-oxiranecarboxylic acid,
3-methyl-3-phenyl-, ethyl
esterethyl 3-methyl-2,3-epoxy
-hydrocinnamic acidethyl 3-methyl-3-phenyl
-2-oxiranecarboxylate2,3-epoxy-3-phenylbutyric acid,
ethyl ester3-methyl-3-phenyl
hydrocinnamic acid,
ethylester3-methyl-3-phenylglycidic acid
ethyl ester3-methyl-3-phenylglycidic
acid, ethyl ester3-methyl
-3-phenyloxiranecarboxylic
acid, ethyl ester

2-phenyl-2,3-epoxybutyric acid

ethyl ester

3-phenyl-2,3-epoxybutyric acid ethyl ester

aldehyde C16

butanoic acid, 2,3-epoxy-3-phenyl-, ethyl ester

ethyl 2,3-epoxy-3-methyl-3-phenylpropanoate

ethyl 2,3-epoxy-3-phenylbutyrate

ethyl 3-methyl-3-phenylglycidate

ethyl 3-methyl-3-phenyloxiranecarboxylate

ethyl ester of 2,3-epoxy-3-phenylbutanoic acid

ethyl ester of 2,3-epoxy-3-phenylbutanoic acid

Soluble in :

benzyl alcohol

ethyl alcohol, 1:2 80 % alcohol

ethyl alcohol, 4 parts of 70% alcohol

fixed oils

paraffin oil, slightly

propylene glycol

water, 111.3 mg/L @ 25 °C (est)

Insoluble in :

water

glycerin

Stability :

cream

detergent powder

hair spray

household product

lotion

non-discoloring

powder

soap

Notes :

Blends well with aldehydes, ionones, woody and fruity lactones. waxy floral fruity accord: 0.05 - leeral 0.01 - aldehyde C-14 0.05 - aldehyde C18 10% 0.01 - musk gx 0.01 - raspberry ketone 10% 0.01 - aldehyde C-16 10% rose accord: 0.01 - dihydromyrcenol 0.05 - benzyl propionate 0.05 - linalyl acetate 0.05 - phenethyl alcohol 0.01 - aldehyde C-14 10% 0.20 - amyl cinnamaldehyde 0.01 - ethyl shiff 0.05 - naphthyl ethyl ether 0.01 - aldehyde C-16 10% 0.05 - geraniol

Please share your Comments.

Email Address:

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Penta International Corporation

50 Okner Parkway Livingston, NJ 07039-1604 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail. sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	ETHYL VANILLIN
Product Number	05-75200
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4)

Skin irritation (Category 2)

Eye irritation (Category 2A)

Specific target organ toxicity - single exposure (Category 3), Respiratory system

Acute aquatic toxicity (Category 3)

Chronic aquatic toxicity (Category 3)

GHS Label elements, including precautionary statements

Pictogram:



Signal word

Warning

Hazard statement(s)

H302

Harmful if swallowed.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
Precautionary statement(s)	
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/ eye protection/ face protection.
P301 P312	IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P302 P352	IF ON SKIN: Wash with plenty of soap and water.
P304 P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 P351 P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/ physician if you feel unwell.
P321	Specific treatment (see supplemental first aid instructions on this label).
P330	Rinse mouth.
P332 P313	If skin irritation occurs: Get medical advice/ attention.
P337 P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P403 P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard	1
Flammability	1
Physical hazards	1

NFPA Rating

Health hazard	1
Fire	1
Reactivity Hazard	0

Potential Health Effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	Harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYM	Ethylvanillin		
Formula	3-Ethoxy-4-hydroxybenzaldehyde		
Molecular Weight	C ₉ H ₁₀ O ₃		
CAS-No	166.18 g/mol	EC-No	Index-No.
121-32-4		204-464-7	Concentration

4. FIRST-AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Conditions of flammability

Not flammable or combustible.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Light sensitive. Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form

SOLID

Colour WHITE TO OFF WHITE

Safety data

pH	no data available
Melting point (°C)	76
Boiling point (°C)	171
Flash point (°F) Closed cup	>200
Ignition temperature	no data available
Autoignitiontemperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	0.01
Density @25 °C	1.050
Water solubility	SLIGHT
Partition coefficient: n-octanol/water	no data available
Relative vapourdensity	no data available
Odor	VANILLA
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents, Strong bases

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50 - rat - 1,590 mg/kg

Inhalation LC50 -no data available

Dermal LD50 - rabbit -> 7,940 mg/kg

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

Genotoxicity in vitro - Human - lymphocyte
Sister chromatid exchange

Genotoxicity in vitro - Hamster - fibroblast
Cytogenetic analysis

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion Harmful if swallowed.

Skin Harmful if absorbed through skin. Causes skin irritation.

Eyes Causes eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

RTECS: CU6125000

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish LC50 - *Pimephales promelas* (fathead minnow) - 87.6 mg/l - 96 h

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods.

IMDG

Not dangerous goods.

IATA

Not dangerous goods.

15. REGULATORY INFORMATION

OSHA Hazards

Harmful by ingestion , Irritant

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
3-Ethoxy-4-hydroxybenzaldehyde	121-32-4	

New Jersey Right To Know Components

	CAS-No.	Revision Date
3-Ethoxy-4-hydroxybenzaldehyde	121-32-4	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.



Penta International Corporation

50 Okner Parkway Livingston, NJ 07039-1604 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	EUCALYPTOL
Product Number	05-75800
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

OSHA Hazards -

Combustible Liquid, Target Organ Effect, Irritant

Target Organs

Kidney

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 3)

GHS Label elements, including precautionary statements

Pictogram:



Signal word

Warning

Hazard statement(s)

H226

Flammable liquid and vapour.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P303 P361 P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P370 P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P403 P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard 2

Flammability 2

Physical hazards 2

NFPA Rating

Health hazard 2

Fire 2

Reactivity Hazard 0

Potential Health Effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Skin May be harmful if absorbed through skin. Causes skin irritation

Eyes Causes eye irritation.

Ingestion May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYMS 1,3,3-Trimethyl-2-oxabicyclo[2.2.2]octane.
1,8-Epoxy-p-menthane
1,8-Cineole

Formula C10 H18 O

Molecular Weight 154.25 g/mol

CAS-No 470-82-6 **EC-No** 207-431-5 **Index-No.** **Concentration**

4. FIRST-AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES**Conditions of flammability**

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/ open flame/ hot surface. No smoking.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions.- Carbon oxides.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate

government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	colorless to pale yellow

Safety data

pH	no data available
Melting point (°C)	1
Boiling point (°C)	176
Flash point (°F) Closed cup	115
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	0.922
Water solubility	insoluble
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odor	aromatic, camphoraceous

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents, Strong acids, Acid chlorides, Acid anhydrides.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides.

Other decomposition products- no data available.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

LD50 Oral-rat-2,480 mg/kg

Remarks: Behavioral: Somnolence (genral depressed activity)}. Behavioral: Coma.

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

Skin-rabbit- No skin irritation

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

Genotoxicity in vitro-Hamster-ovary

Sister chromatid exchange

Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

Reproductive toxicity-rat- Subcutaneous

Effects on Newborn: Biochemical and metabolic.

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.

Signs and Symptoms of Exposure

Ingestion may provoke the following symptoms:, Epigastric pain.,Nausea, Vomiting,Dizziness, muscle weakness, tachycardia, Cyanosis, delirium, Convulsions, renal damage. Oedema

Synergistic effects

no data available

Additional Information

RTECS: OS9275000

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish LC50-Pimephales promelas(fathead minnow)-102 mg/l- 96 h

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exer extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 1993 Class:3 Packing group: III
Proper shipping name: Flammable liquids,n.o.s. (Cineole)

IMDG

UN number:1993 Class: 3 Packing group: III
Proper shipping name:FLAMMABLE LIQUID, N.O.S. (Cineole)

IATA

UN number: 1993 Class: 3 Packing group: III
Proper shipping name: Flammable liquid, n.o.s. (Cineole)

15. REGULATORY INFORMATION

OSHA Hazards

Combustible Liquid, Target Organ Effect, Irritant.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard.

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Cineole	CAS-No.	Revision Date
	470-82-6	

New Jersey Right To Know Components

Cineole	CAS-No.	Revision Date
	470-82-6	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.



SAFETY DATA SHEET

E-016

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name EUGENOL 2.0% pet
Article Number E-016

Applications Diagnosis of contact allergy.

Manufacturer Chemotechnique Diagnostics AB
 Modemgatan 9
 SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION**Health hazards**

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy
Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation.

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]**

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
EUGENOL	97-53-0	2.0%	Acute tox. Oral 4, Skin irrit. 2, Eye irrit. 2, Resp. sensit. 1, Skin sensit. 1, Spec. targ. org. tox. - single exp. 3; H302, H315, H317, H319, H334, H335

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
EUGENOL	97-53-0	2.0%	Xn; R22, R36/37/38, R42/43

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES**Emergency and first aid procedures**

Obtain medical attention.



5. FIRE-FIGHTING MEASURES*

Suitable extinguish media

CO₂, powder or water spray Fight larger fires with water spray or alcohol resistant foam

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only

10. STABILITY AND REACTIVITY



CHEMOTECHNIQUE DIAGNOSTICS

Incompability

May react with strong oxidizing agents.

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS**Waste disposal method**

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION**Text of H-statements and R-phrases mentioned in Section 3**

Acute tox. Oral 4	Acute toxicity, Oral (Category 4)
Skin irrit. 2	Skin irritation (Category 2)
Eye irrit. 2	Eye irritation (Category 2)
Resp. sensit. 1	Respiratory sensitization (Category 1)
Skin sensit. 1	Skin sensitization (Category 1)
Spec. targ. org. tox. - single exp. 3	Specific target organ toxicity - single exposure (Category 3)
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
Xn	Harmful
R22	Harmful if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin
R42/43	May cause sensitization by inhalation and skin contact



CHEMOTECHNIQUE DIAGNOSTICS

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.

SAFETY DATA SHEET

Revision Date 24-Dec-2021

Revision Number 4

1. Identification

Product Name 4-Hydroxy-3-methoxycinnamic acid

Cat No. : AC156360000; AC156360050; AC156360250; AC156361000

Synonyms Ferulic acid

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number For information US call: 001-800-ACROS-01 / Europe call: +32 14 57 52 11
Emergency Number US:001-201-796-7100 / Europe: +32 14 57 52 99
CHEMTREC Tel. No.US:001-800-424-9300 / Europe:001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Respiratory system.	

Label Elements

Signal Word
Warning

Hazard Statements
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation

**Precautionary Statements****Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell

Skin

IF ON SKIN: Wash with plenty of soap and water
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash before reuse

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention

Storage

Store in a well-ventilated place. Keep container tightly closed
 Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

3. Composition/Information on Ingredients

Component	CAS No	Weight %
2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-	1135-24-6	99

4. First aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention.
Inhalation	Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.
Ingestion	Clean mouth with water. Get medical attention.
Most important symptoms and effects	No information available.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Water spray. Carbon dioxide (CO ₂). Dry chemical. Chemical foam.
Unsuitable Extinguishing Media	No information available
Flash Point Method -	No information available No information available
Autoignition Temperature	Not applicable
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
 Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products
 Carbon monoxide (CO). Carbon dioxide (CO₂).

Protective Equipment and Precautions for Firefighters
 As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

<u>NFPA</u>	Health	Flammability	Instability	Physical hazards
	2	0	0	N/A

6. Accidental release measures

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment as required
Environmental Precautions	See Section 12 for additional Ecological Information

Methods for Containment and Clean Sweep up and shovel into suitable containers for disposal
 Up

7. Handling and storage

Handling	Avoid contact with skin and eyes. Do not breathe dust.
Storage.	Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Incompatible Materials. Strong oxidizing agents.

8. Exposure controls / personal protection

<u>Exposure Guidelines</u>	This product does not contain any hazardous materials with occupational exposure limit established by the region specific regulatory bodies.
-----------------------------------	--

Engineering Measures
 Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	No protective equipment is needed under normal use conditions.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9 Physical and chemical properties

Physical State	Powder Solid
Appearance	Beige
Odor	Odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	169 - 173 °C / 336.2 - 343.4 °F
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	No information available
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	Not applicable
Decomposition Temperature	No information available
Viscosity	Not applicable
Molecular Formula	C10 H10 O4
Molecular Weight	194.19

10 Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂)
Hazardous Polymerization	No information available
Hazardous Reactions	None under normal processing

11 Toxicological information**Acute Toxicity**

Product Information	No acute toxicity information is available for this product
Component Information	
Toxicologically Synergistic Products	No information available
<u>Delayed and immediate effects as well as chronic effects from short and long-term exposure</u>	
Irritation	No information available
Sensitization	No information available
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-	1135-24-6	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects	Not mutagenic in AMES Test
Reproductive Effects	No information available.
Developmental Effects	No information available.
Teratogenicity	No information available.
STOT - single exposure	Respiratory system
STOT - repeated exposure	None known
Aspiration hazard	No information available
Symptoms / effects, both acute and delayed	No information available
Endocrine Disruptor Information	No information available
Other Adverse Effects	The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains.

Persistence and Degradability	Soluble in water Persistence is unlikely based on information available
Bioaccumulation/ Accumulation	No information available.
Mobility	Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT	Not regulated
TDG	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-	1135-24-6	X	ACTIVE	-

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL)

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-	1135-24-6	-	X	214-490-0	X	-	X	X	X	-

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313	Not applicable
SARA 311/312 Hazard Categories	See section 2 for more information
CWA (Clean Water Act)	Not applicable
Clean Air Act	Not applicable
OSHA - Occupational Safety and Health Administration	Not applicable
CERCLA	Not applicable
California Proposition 65	This product does not contain any Proposition 65 chemicals.
U.S. State Right-to-Know Regulations	Not applicable
U.S. Department of Transportation	
Reportable Quantity (RQ):	N
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N
U.S. Department of Homeland Security	This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-	1135-24-6	Not applicable	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities	Seveso III Directive (2012/18/EC) - Qualifying Quantities	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)

		for Major Accident Notification	for Safety Report Requirements		
2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-	1135-24-6	Not applicable	Not applicable	Not applicable	Not applicable

6. Other information

Prepared By Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Revision Date 24-Dec-2021
Print Date 24-Dec-2021

Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS



ATLANTIC SPICE CO.

Safety Data Sheet

DEHYDRATED GARLIC POWDER

Safety Data Sheet dated 5/28/2015 - version 1

Date of first edition: 5/28/2015

1. IDENTIFICATION

Product Identifier

Mixture Identification:

Trade name: DEHYDRATED GARLIC POWDER

Other means of identification

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Atlantic Spice Company

2 Shore Road

North Truro MA 02652

+1 508-487-6100

2. HAZARD(S) IDENTIFICATION

This mixture has not been tested as a whole. It contains ingredients that could present a health hazard to employees, as outlined below.

Classification of the chemical

The product is not classified as dangerous according to OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label elements

This product is not a hazardous article and need not be labeled according to EC Directive 67/548, 99/45 as amended.

Ingredient(s) with unknown acute toxicity

None

Hazards not otherwise classified identified during the classification process:

None

NIOSH has reported the occurrence of severe lung disease in some workers who make or use flavorings. According to the December 2003 NIOSH Report, the main respiratory symptoms experienced by workers affected by fixed airways obstruction include cough (usually without phlegm) and shortness of breath on exertion. NIOSH further reports that some workers may experience fever, night sweats, and weight loss.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Not determined

Mixtures

The identify of one or more individual components of this mixture and the exact percentage concentrations of disclosed components of this mixture are considered proprietary information and are being withheld as trade secret information pursuant to 29 CFR 1910.1200(j).

None

4. FIRST AID MEASURES

Description of first aid measures

In case of skin contact:

Wash with plenty of water and disinfectant/non-abrasive soap.

In case of eye contact:

Wash immediately with water.

In case of ingestion:

Do not induce vomiting. Seek immediate medical attention and provide SDS to medical provider.

In case of inhalation:

Remove exposed person to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

Not determined

Indication of any immediate medical attention and special treatment needed

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:

In case of fire use dry chemical, foam or CO2 for extinction.

In case of fire use dry chemical, foam or CO2 for extinction.

Unsuitable extinguishing media

None identified

Specific hazards arising from the chemical

Do not inhale explosion or combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: Not determined

Explosive properties: Not relevant (UN Test 3(a)) BAM Fallhammer)

Oxidizing properties: Not relevant (Oxidizing Liquids Test Chamber)

Special personal protective equipment and precautions for fire-fighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water. Do not discharge into drains.

Move undamaged containers from immediate hazard area but only if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment.

Remove exposed persons to safety.

See protective measures under points 7 and 8.

Methods and material for containment and cleanup

Suitable material for taking up: dry and inert absorbing material (e.g. vermiculite, sand, earth).

Wash with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapors and mists.

Do not eat or drink while working.

See also section 8 for recommended personal protective equipment.

Conditions for safe storage, including any incompatibilities

Incompatible materials:

None identified

Instructions regarding storage premises:

Adequately ventilated premises.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

No Data Available

Appropriate engineering controls: Not determined

Individual protection measures

Eye/face protection:

Not needed for normal use. Follow good working practices.

Skin protection:

No special precautions necessary for normal use.

Hand protection:

Not needed for normal use.

Respiratory protection:

Control worker exposure to below detectable levels. However, if an effective ventilation system is not in use, use a NIOSH-approved respirator for organic vapors and/or dusts. Where appropriate, use closed systems to transfer and process this material. If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. Use local exhaust as required to capture all airborne vapors and dust. If necessary, use an experienced air-sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operation practices to minimize exposure. If necessary, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material.

Additional Information:

In December 2003, the National Institute for Occupational Safety and Health (NIOSH) published an Alert on preventing lung disease in workers who use or make flavorings. NIOSH Publication Number 2004-110. In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled, "Respiratory Safety in the Flavoring Manufacturing Workplace". Both of these documents provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations

In these documents are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these documents.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Solid
Appearance: Powder, White To Off White (Visual)
Odor: Garlic (Organoleptic)
Odor threshold: Not determined (Organoleptic)
pH: Not determined (pH meter)
Melting point/ range: Not determined
Boiling point/ range: Not determined (OECD GUIDELINE 103)
Flash point: Not determined (Pensky-Martens Closed Cup Test (ASTM D93))
Evaporation rate: Not determined (Shell Thin-Film Evaporometer ASTM D3539 - 87(2004))
Upper/lower flammability or explosive limits: Not determined (ASTM E681-09)
Vapor density: Not determined (Calculation)
Vapor pressure: Not determined (ASTM D5190 - 07 for Petroleum Products)
Density: Not determined (OECD GUIDELINE 109)
Water solubility: Not determined (OECD GUIDELINE 105)
Lipid solubility: Not determined (OECD GUIDELINE 105)
Partition coefficient (n-octanol/water): Not determined (OECD GUIDELINE 123 Slow-Stirring Method)
Auto-ignition temperature: Not determined (ASTM E659 Method for Liquid Chemicals.)
Decomposition temperature: Not determined (Time Pressure Test Vessel)
Viscosity: Not determined (OECD GUIDELINE 114)
Explosive properties: Not determined (UN Test 3(a)ii BAM Fallhammer)
Oxidizing properties: Not determined (Oxidizing Liquids Test Chamber)
Flammability (Solid, Gas): Not determined (ASTM Method E681-94.)

Other information

Substance group relevant properties: Not determined
Miscibility: Not determined
Fat solubility: Not determined
Conductivity: Not determined (Conductivity meter)

10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions.

Chemical stability

Data not available.

Possibility of hazardous reactions

Burning produces carbon monoxide and/or carbon dioxide.

Conditions to avoid

Stable under normal conditions of temperature and pressure.

Incompatible materials

Avoid strong oxidizing agents, peroxides, acids, alkali metals.

Hazardous decomposition products

Burning produces carbon monoxide and/or carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicological Information of the product: No Data Available

Substance(s) listed on the IARC Monographs:

None

Substance(s) listed as OSHA Carcinogen(s):

None

Substance(s) listed as NIOSH Carcinogen(s):

None

Substance(s) listed on the NTP report on Carcinogens:

None

12. ECOLOGICAL INFORMATION

Product code: @GetMaterialName(CODE)

Toxicity

Adopt good working practices so that the product is not released into the environment.

Persistence and degradability

Not determined

Bioaccumulative potential

Not determined

Mobility in soil

Not determined

Other adverse effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

Any disposal practice must be in compliance with local, state and federal laws and regulations (contact local or state environmental agency for specific rules). Do not dump into sewers, any body of water or onto the ground.

Recover if possible. Comply with applicable regulations.

14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

UN number

ADR-UN number: Not determined
DOT-UN Number: Not determined
IATA-Un number: Not determined
IMDG-Un number: Not determined

UN proper shipping name**Transport hazard class(es)**

ADR-Class: Not determined
DOT Hazard Class: Not determined
IATA-Class: Not determined
IMDG-Class:

Not determined

Packing group

ADR-Packing Group:

Not determined

Exempted for ADR:

Not determined

IATA-Packing group:

Not determined

IMDG-Packing group:

Not determined

Environmental hazards

Marine pollutant: No
Environmental Pollutant: Not determined

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not determined

Special precautions

Department of Transportation (DOT):

Not determined

Road and Rail (ADR-RID):

Not determined

Air (IATA):

Not determined

Sea (IMDG):

Not determined

15. REGULATORY INFORMATION**USA - Federal regulations****TSCA - Toxic Substances Control Act****TSCA inventory:**

Product code: @GetMaterialName(CODE)

All the components are listed on the TSCA Inventory

Section 313 - Toxic chemical list:

no substances listed

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

no substances listed

16. OTHER INFORMATION

Safety Data Sheet dated: 5/28/2015 - version 1

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

CLP: Classification, Labeling, Packaging

EINECS: European Inventory of Existing Commercial Chemical Substances

INCI: International Nomenclature of Cosmetic Ingredients

CAS: Chemical Abstracts Service (division of the American Chemical Society)

GefStoffVO: Ordinance on Hazardous Substances, Germany

LC50: Lethal concentration, for 50 percent of test population

LD50: Lethal dose, for 50 percent of test population

DNEL: Derived No Effect Level

PNEC: Predicted No Effect Concentration

TLV: Threshold Limiting Value

TWATLV: Threshold Limiting Value for the Time Weighted Average 8 hour day.(ACGIH Standard)

STEL: Short Term Exposure limit

STOT: Specific Target Organ Toxicity

WGK: German Water Hazard Class

KSt: Explosion coefficient

Material Safety Data Sheet

Geraniol, 99% (GC)

ACC# 74914

Section 1 - Chemical Product and Company Identification

MSDS Name: Geraniol, 99% (GC)

Catalog Numbers: AC410900000, AC410900050, AC410900250, AC410901000

Synonyms: 2,6-Dimethyl-trans-2,6-Octadien-8-ol

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
106-23-0	l-Citronellal	97	203-376-6

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear yellow viscous liquid.

Caution! May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

Target Organs: None.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause skin irritation.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), weakness, acidosis, and shock.

Human fatalities have been reported from acute poisoning.

Inhalation: May cause respiratory tract irritation.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.

Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid immediately. Do not induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use agent most appropriate to extinguish fire. Cool containers with flooding quantities of water until well after fire is out.

Flash Point: 101 deg C (213.80 deg F)

Autoignition Temperature: Not available.

Explosion Limits, Lower:N/A

Upper: N/A

NFPA Rating: 2 - flammability

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a cool, dry place. Keep container closed when not in use.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
l-Citronellal	none listed	none listed	none listed

HA Vacated PELs: l-Citronellal: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

Section 9 - Physical and Chemical Properties

Physical State: Viscous liquid

Appearance: clear yellow

Odor: sweet, fruity odor

pH: Not available.

Vapor Pressure: 0.2 mmHg @ 20 C

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 230 deg C

Freezing/Melting Point: -15 deg C

Decomposition Temperature: Not available.

Solubility: Insoluble.

Specific Gravity/Density: .8750g/cm³

Molecular Formula: C₁₀H₁₈O

Molecular Weight: 154.25

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, strong oxidants.

Incompatibilities with Other Materials: Strong oxidizing agents - acid chlorides - acid anhydrides.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 106-23-0: RH2140000

LD50/LC50:

OSHA# 106-23-0:

Oral, rat: LD50 = 2420 mg/kg;
 Skin, rabbit: LD50 = >2500 mg/kg;

Carcinogenicity:

CAS# 106-23-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Mutagenicity: No information available.

Neurotoxicity: No information available.

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

IRA P-Series: None listed.

CRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 106-23-0 is listed on the TSCA Inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

RCRA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 106-23-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations**European Labeling in Accordance with EC Directives****Hazard Symbols:**

XI

Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 106-23-0: 1

Canada - DSL/NDSL

CAS# 106-23-0 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of B3, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 4/09/1998

Revision #3 Date: 10/03/2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no

warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.

Material Safety Data Sheet
NATURAL GERANYL ACETATE

07-11000

Date Issued: 10/23/2010

1. Chemical Product and Company Information

Penta International Corp.
50 Okner Parkway
Livingston, NJ 07039

WEB PAGE: WWW.PENTAMFG.COM
E-MAIL: SALES@PENTAMFG.COM

Company Contact: Mark J Volpe
Emergency Contact: CHEMTREC

Telephone Number: (973)740-2300
Telephone Number: (800)424-9300 24-hrs

Product Name: NATURAL GERANYL ACETATE
Product Code: 07-11000

Molecular Formula: C12 H20 O2

Molecular Weight: 196.29
CAS#: 105-87-3
FEMA# 2509

2. Hazardous Ingredient(s)

Contains: SEE ABOVE

3. Physical Properties

Physical State: LIQUID	% Volatile: N/A
Odor: SWEET, FLOWER-LIKE	Melting Point (°C): N/A
Color: COLORLESS TO PALE YELLOW	Vapor Density (Air = 1): N/A
Solubility in Water: INSOLUBLE	Refractive Index @ 20C: 1.465
Boiling Point (°C): 244	Water Content: N / A
Vapor Pressure (mm Hg @ 20°C): 0.034	Alcohol Content: N / A
Specific Gravity @ 25C (H2O=1.0): 0.906	

4. Physical Hazard Data

Flash Point (°F): 200+	Method Used: CC
L.F.L: N / A	U.F.L: N / A
DOT	NON-REGULATED
IMDG	NON-REGULATED
IATA	NON-REGULATED

Extinguishing Media: Carbon Dioxide; Dry Chemical; Universal Type Foam

Special Fire Fighting Procedures: Evacuate unprotected and untrained personnel. Trained firefighting personnel should be equipped with self-contained breathing apparatus and full protective gear.

Unusual Fire, Explosion and Stability Hazards: SEALED CONTAINERS MAY BUILD UP PRESSURE AT HIGH TEMPERATURES. IF POSSIBLE, KEEP CONTAINERS COOL WITH WATER SPRAY. CARBON DIOXIDE AND CARBON MONOXIDE PRODUCED UPON COMBUSTION.

5. Health Hazard Data

Carcinogenicity

NTP: NO

OSHA: NO

IARC MONOGRAPH. NO

OSHA PEL: NOT ESTABLISHED

ACGIH TLV: NOT ESTABLISHED

Acute Toxicity Data:

ORAL LD50: 6,330 MG/KG RAT

DERMAL LD50: NOT ESTABLISHED

INHALATION LC50: NOT ESTABLISHED

Health Hazards (Acute and Chronic).

Skin Contact: MAY CAUSE IRRITATION

Inhalation: NOT ESTABLISHED

Eye Contact: MAY CAUSE IRRITATION

Ingestion: NOT ESTABLISHED

Other Effects:

The health hazard information is based on laboratory animal test data for the individual components of this product in their pure form as provided under 29 CFR 1910.1200 (d)(5)(ii). The user should consider the relevancy of this information in a manner consistent with its particular purpose.

6. Emergency First Aid Procedures

Eyes: IMMEDIATELY FLUSH EYES WITH LARGE QUANTITIES OF COLD CLEAN WATER FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN IMMEDIATELY

Skin: WASH WITH SOAP AND WATER. FLUSH WITH LARGE QUANTITIES OF WATER. IF IRRITATION PERSISTS CALL A PHYSICIAN.

Inhalation: REMOVE TO FRESH AIR AND CALL A PHYSICIAN IF NECESSARY.

Ingestion: ADMINISTER WATER OR MILK TO DILUTE. CONTACT A PHYSICIAN OR LOCAL POISON CONTROL CENTER IMMEDIATELY. **DO NOT INDUCE VOMITING.**

7. Reactivity Data

This material presents no significant hazard. Hazardous Polymerization will not occur and it will not react violently with water.

Contact with highly reactive chemical oxidants should be avoided. If burned this product will produce carbon monoxide and/or carbon dioxide.

8. Personal Protection

Eyes: IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED. IF THE MATERIAL IS TO BE HANDLED IN A MANNER WHERE SPLASHING MAY OCCUR, THE USE OF SPLASH GOGGLES OR FACE SHIELD IS RECOMMEND.

Respiratory: IN WELL VENTILATED AREAS RESPIRATORY PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED, POORLY VENTILATED AREAS THE USE OF NIOSH-APPROVED RESPIRATORY PROTECTION MAYBE REQUIRED OR IF MATERIAL IS RATED TOXIC BY INHALATION.

Equipment and Apparel: THE USE OF CHEMICAL RESISTANT GLOVES IS RECOMMENDED. ACCEPTABLE INDUSTRIAL HYGIENE PRACTICES SHOULD BE MAINTAINED. LIMIT EXPOSURE TO PRODUCT WHENEVER POSSIBLE. WASH AFTER ANY CONTACT. THOROUGHLY WASH ANY CONTAMINATED CLOTHING OR SHOES.

Ventilation: VENTILATION MEETING ACGIH STANDARDS SHOULD BE EMPLOYED.

9. Storage and Handling

IT IS RECOMMENDED THAT THIS MATERIAL BE STORED IN TIGHT FULL CONTAINERS IN A COOL, DRY PLACE AWAY FROM LIGHT

10. Spill, Release and Waste Disposal Procedures

REMOVE ANY SOURCES OF FLAME OR SPARKS. IF IN A CONFINED AREA NIOSH APPROVED RESPIRATORY PROTECTION MAY BE REQUIRED. ABSORB SPILLS ON VERMICULITE OR OTHER SUITABLE ABSORBENT MATERIAL AND REMOVE TO AN APPROVED DISPOSAL CONTAINER. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

11. Regulatory

US FEDERAL

HMIS III. PHYSICAL HAZARD: 1

HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0 PERSONAL PROTECTION: X
TSCA

CAS# 105-87-3 IS LISTED ON THE TSCA INVENTORY.

HEALTH & SAFETY REPORTING LIST

NONE OF THE CHEMICALS ARE ON THE HEALTH & SAFETY REPORTING LIST.

CHEMICAL TEST RULES

NONE OF THE CHEMICALS IN THIS PRODUCT ARE UNDER A CHEMICAL TEST RULE SECTION 12B

NONE OF THE CHEMICALS ARE LISTED UNDER TSCA SECTION 12B

TSCA SIGNIFICANT NEW USE RULE

NONE OF THE CHEMICALS IN THIS MATERIAL HAVE A SNUR UNDER TSCA.

CERCLA HAZARDOUS SUBSTANCES AND CORRESPONDING RQS

NONE OF THE CHEMICALS IN THIS MATERIAL HAVE AN RQ.

SARA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES

NONE OF THE CHEMICALS IN THIS PRODUCT HAVE A TPQ.

SECTION 313 NO CHEMICALS ARE REPORTABLE UNDER SECTION 313.

CLEAN AIR ACT:

THIS MATERIAL DOES NOT CONTAIN ANY HAZARDOUS AIR POLLUTANTS.

THIS MATERIAL DOES NOT CONTAIN ANY CLASS 1 OZONE DEPLETORS

THIS MATERIAL DOES NOT CONTAIN ANY CLASS 2 OZONE DEPLETORS

CLEAN WATER ACT:

NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS HAZARDOUS SUBSTANCES UNDER THE CWA

NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS PRIORITY POLLUTANTS UNDER THE CWA.

NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS TOXIC POLLUTANTS UNDER THE CWA.

OSHA

NONE OF THE CHEMICALS IN THIS PRODUCT ARE CONSIDERED HIGHLY HAZARDOUS BY OSHA.

STATE

CAS# 105-87-3 IS NOT PRESENT ON STATE LISTS FROM CA, PA, MN, MA, FL, OR NJ.

CALIFORNIA PROP 65

CALIFORNIA NO SIGNIFICANT RISK LEVEL: NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED.

EUROPEAN/INTERNATIONAL REGULATIONS

EUROPEAN LABELING IN ACCORDANCE WITH EC DIRECTIVES

HAZARD SYMBOLS:

NOT AVAILABLE.

RISK PHRASES:

R 36/38 IRRITATING TO SKIN AND EYES.

SAFETY PHRASES:

S 7/8 KEEP CONTAINER TIGHTLY CLOSED AND DRY

S16 KEEP AWAY FROM SOURCES OF IGNITION – NO SMOKING

S 24/25 AVOID CONTACT WITH SKIN AND EYES

S 37 WEAR SUITABLE GLOVES

S 39 WEAR EYE/FACE PROTECTION

WGK (WATER DANGER/PROTECTION)

CAS# 105-87-3

CANADA - DSL/NDL

CAS# 105-87-3

CANADA - WHMIS

WHMIS: NOT AVAILABLE

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CONTROLLED PRODUCTS REGULATIONS AND THE MSDS CONTAINS ALL OF THE INFORMATION REQUIRED BY THOSE REGULATIONS.

12. Disclaimer

Material Safety Data Sheet prepared by: **Penta**

The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in this MSDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.



Penta International Corporation

50 Okner Parkway Livingston, NJ 07039-1604 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	GINGER OIL
Product Number	07-23000
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Flammable liquids (Category 4)

GHS Label elements, including precautionary statements

Pictogram: 

Signal word	Warning
Hazard statement(s)	
H227	Combustible liquid
Precautionary statement(s)	
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P370 P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P403 P235

Store in a well-ventilated place. Keep cool.

P501

Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard	1
Flammability	2
Physical hazards	1

NFPA Rating

Health hazard	1
Fire	2
Reactivity Hazard	0

Potential Health Effects

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

Skin

May be harmful if absorbed through skin. May cause skin irritation.

Eyes

May cause eye irritation.

Ingestion

May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No
8007-08-7

EC-No

Index-No.

Concentration

4. FIRST-AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Conditions of flammability

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions.- Carbon oxides.

Futher information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid breathing vapors, mist or gas. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirator and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Safety glasses with side-shields conforming to EN 166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form LIQUID
Colour LIGHT YELLOW TO YELLOW

Safety data

pH no data available
Melting point (°C) no data available
Boiling point (°C) no data available
Flash point (°F) Closed cup 147
Ignition temperature no data available
Autoignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Vapour pressure (mm Hg @20 °C) no data available
Density @25 °C 0.875
Water solubility INSOLUBLE
Partition coefficient: n-octanol/water no data available
Relative vapour density no data available
Odor GINGER
Odour Threshold no data available
Evaporation rate no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Other decomposition products - no data available

Hazardous decomposition products formed under fire conditions. - Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity**Oral LD50**

LD50 Oral - rat- > 5,000 g/kg

LD50 Oral - mouse - 3,450 mg/kg

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

Skin - rabbit -

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin. May cause skin irritation.

Eyes

May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available.

Additional Information

RTECS: LY9480000

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and

scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods.

IMDG

Not dangerous goods.

IATA

Not dangerous goods.

15. REGULATORY INFORMATION

OSHA Hazards

Combustible Liquid.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard.

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Ginger oil	8007-08-7	

New Jersey Right To Know Components

	CAS-No.	Revision Date
Ginger oil	8007-08-7	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.


16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.


Revision Date: 11/01/2020

Print Date: 4/01/2022



Alpha Chemika

ISO 9001 QUALITY SYSTEM CERTIFIED ORGANIZATION



MATERIAL SAFETY DATA SHEET

MSDS

Mohid Heights Unit no 5 4th Floor, Lokhandwala RTO Road off Four Bungalows,
opp Versova Tel Exchange Andheri (W) Mumbai - 400 053 INDIA.

Glycerol Tributyrate (for Biochemistry) (Tributyryn) MSDS

Section 1: Chemical Product and Company Identification

Product Name: Glycerol Tributyrate (for Biochemistry) (Tributyryn)

Catalog Codes: SLT2938

CAS#: 60-01-5

RTECS: ET7350000

TSCA: TSCA 8(b) inventory: Glycerol Tributyrate (for Biochemistry) (Tributyryn)

Cl#: Not available.

Synonym: Glyceryl Tributyrate

Chemical Name: Tributyrin

Chemical Formula: C15-H26-O6

Section 2: Composition and Information on Ingredients

Composition:

Component CAS # % by Weight

Glycerol Tributyrate (for Biochemistry) (Tributyryn) 60-01-5 100

Toxicological Data on Ingredients: Tributyrin: ORAL (LD50): Acute: 3200 mg/kg [Rat]. 12800 mg/kg [Mouse]. VAPOR (LC):

Acute: >75 ppm 6 hours [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:

Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation. Severe overexposure can result in death.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Serious Skin Contact: Not available.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical

attention immediately.

Serious Inhalation: Not available

Ingestion:

NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: 407.22°C (765°F)

Flash Points: CLOSED CUP: 173°C (343.4°F). OPEN CUP: 180°C (356°F).

Flammable Limits: LOWER: 0.5%

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances:

Slightly flammable to flammable in presence of open flames and sparks. Non-flammable in presence of shocks, of heat.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill:

Poisonous liquid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to

reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:

Keep locked up.. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray.

Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:

Safety glasses. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

~~Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid~~
Inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor: Fruity, buttery

Taste: Bitter.

Molecular Weight: 302.37 g/mole

Color: Clear Colorless.

pH (1% soln/water): Not applicable.

Boiling Point: 305°C (581°F) -310 C

Melting Point: -75°C (-103°F)

Critical Temperature: Not available.

Specific Gravity: 1.035 (Water = 1)

Vapor Pressure: Not available.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, diethyl ether, acetone.

Solubility:

Easily soluble in diethyl ether, acetone. Very slightly soluble in hot water. Very soluble in ethanol and benzene Insoluble in cold water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excessive heat, ignition sources, incompatible materials

Compatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Not available.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact.

Toxicity to Animals:

Acute oral toxicity (LD50): 3200 mg/kg [Rat]. Acute toxicity of the vapor (LC): >75 6 hours [Rat].

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: May cause cancer based on animal test data

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: May cause irritation. May be absorbed through skin. Eyes: May cause eye irritaiton.

Inhalation: May cause respiratory tract irritation. Ingestion: May cause digestive tract irritation. May affect behavior (convulsions) and respiration (respiratory depression). It is expected to be a low ingestion hazard. The toxicological properties of this substance have not been fully investigated.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Tributyrin

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

Not available S24/25- Avoid contact with skin and eyes. S28- After contact with skin, wash immediately with plenty of [***]
S37-

Wear suitable gloves. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: g

National Fire Protection Association (U.S.A.):

Health: 0

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/11/2005 12:48 PM

Last Updated: 11/06/2008 12:00 PM



Material Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400 1-1998

Section I. Product and Company Identification											
Product Name	Food Color, Green (Powder)	Item Code	30-1278								
Commercial Name	N/A	CAS#	N/A								
Synonym(s)	Color Additive	RTECS	N/A								
		In case of emergency contact: CHEMTREC (24hr) 1-800-424-9300									
		HMIS Label									
Supplier	PCCA 9901 South Wilcrest Houston, TX 77099	Phone 1-800-331-2498 Fax 1-800-874-5760	<table border="1"> <tr> <td>Health Hazard</td> <td>0 - Minimal</td> </tr> <tr> <td>Flammability</td> <td>0 - Minimal</td> </tr> <tr> <td>Reactivity</td> <td>0 - Minimal</td> </tr> <tr> <td>Personal Protection</td> <td>A</td> </tr> </table>	Health Hazard	0 - Minimal	Flammability	0 - Minimal	Reactivity	0 - Minimal	Personal Protection	A
Health Hazard	0 - Minimal										
Flammability	0 - Minimal										
Reactivity	0 - Minimal										
Personal Protection	A										

Section II. Composition and Information on Ingredients				
Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
N/A				

Section III. Hazards Identification	
Potential Acute Health Effects	Eye Contact: May cause eye irritation by direct contact Inhalation: May cause respiratory tract irritation. Ingestion: None Skin Contact: None
Potential Chronic Health Effects	N/A

Section IV. First Aid Measures	
Eye Contact	Flush eyes with water for at least 15 minutes If irritation persists, contact a doctor
Skin Contact	Wash skin with soap and plenty of water Remove contaminated clothing and wash before wearing again
Inhalation	Remove individual to fresh air
Ingestion	If large quantities are ingested, consult your physician.
Other	N/A

Section V. Fire and Explosion Data	
Flash Points	N/A
Flammable Limits	N/A
Products of Combustion	N/A
Fire Hazards	None.
Explosion Hazards	None.
Fire Fighting Media and Instructions	None
Extinguishing Media to Avoid	N/A
Other	N/A

Section VI. Accidental Release Measures	
Spill Cleanup Instructions	Clean up with warm water and hypochlorite bleach



Material Safety Data Sheet

For Compliance with OSHA 29 CFR 1910 1200 and ANSI Z400.1-1998

Section VII. Handling and Storage

Handling and Storage Info. Store in a tightly sealed container

Section VIII. Exposure Controls/Personal Protection

Personal Protection Eyes: Eye protection is suggested for compliance with Good Manufacturing Practices (GMP) Respiratory No respiratory protection required, but dust masks are suggested

Other Protective Measures and Equipment To minimize clean-up, wear gloves when handling material. Work/Hygienic Practices. Some dyes may temporarily stain skin. Use good personal hygiene practices, limit exposure to product whenever possible to minimize clean-up.

Exposure Limits N/A

Section IX. Physical and Chemical Properties

Appearance Green powder

Odor Odorless.

Molecular Weight N/A

Boiling Point N/A

Melting Point N/A

Specific Gravity N/A

Vapor Pressure N/A

Vapor Density N/A

Viscosity N/A

Solubility Insoluble to slightly soluble in water, slightly soluble in alcohol, soluble in dilute sodium hydroxide

Other N/A

Section X. Stability and Reactivity Data

Stability This is a very stable material.

Conditions to Avoid N/A

Materials to Avoid Avoid contact with strong alkalines and oxidizing agents.

Other Hazardous polymerization will not occur

Section XI. Toxicological Information

Routes of Entry N/A

Toxicity Data N/A

Section XII. Ecological Information

Information N/A

Section XIII. Disposal Considerations

Waste Disposal Dispose of in accordance with local, state, and federal regulations.

Section XIV. Transport Information

DOT Classification N/A

Section XV. Other Regulatory Information

Regulations N/A



Material Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Other N/A

Section XVI. Other Information

Other N/A

Material Safety Data Sheet

Guar gum

ACC# 89758

Section 1 - Chemical Product and Company Identification

MSDS Name: Guar gum

Catalog Numbers: S76773, S76774

Synonyms: Guaran; Indalca AG; Jaguar.

Company Identification:

Fisher Scientific

1 Reagent Lane

Fair Lawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
9000-30-0	Guar gum	100.0	232-536-8

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: yellowish-white powder.

Caution! Repeated inhalation of dust can cause sensitization to susceptible individuals. May cause allergic skin reaction. May cause eye, skin, and respiratory tract irritation. The toxicological properties of this material have not been fully investigated.

Target Organs: Respiratory system, skin.

Potential Health Effects

Eye: Dust may cause mechanical irritation.

Skin: May cause skin irritation. May cause sensitization by skin contact.

Ingestion: May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

Inhalation: The toxicological properties of this substance have not been fully investigated. Inhalation of dust may cause respiratory tract irritation. May cause respiratory sensitization.

Chronic: Some individuals may develop a respiratory allergenic response to guar dust. Persons with a history of respiratory allergies may have those conditions aggravated by exposure to guar dust.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Runoff from fire control or dilution water may cause pollution.

Extinguishing Media: Use agent most appropriate to extinguish fire.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower:Not available.

Upper: Not available.

HA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Guar gum	none listed	none listed	none listed

OSHA Vacated PELs: Guar gum: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Powder

Appearance: yellowish-white

Odor: Not available.

pH: 5.5-6.2 (1% solution)

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: Not available.

Decomposition Temperature: Not available.

Solubility: Soluble.

Specific Gravity/Density: Not available.

Molecular Formula: Not available.

Molecular Weight: Not available.

Section 10 - Stability and Reactivity

Chemical Stability: Stable.

Conditions to Avoid: Incompatible materials, dust generation, excess heat.

Incompatibilities with Other Materials: None reported.

Hazardous Decomposition Products: Irritating and toxic fumes and gases, acrid smoke and fumes.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:**CAS#** 9000-30-0: MG0185000**LD50/LC50:**

CAS# 9000-30-0:

Oral, mouse: LD50 = 8100 mg/kg;

Oral, rabbit: LD50 = 7 gm/kg;

Oral, rat: LD50 = 6770 mg/kg;

Carcinogenicity:

CAS# 9000-30-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found**Teratogenicity:** No information found**Reproductive Effects:** No information found**Mutagenicity:** No information found**Neurotoxicity:** No information found**Other Studies:**

Section 12 - Ecological Information
--

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.**RCRA U-Series:** None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information
--

US FEDERAL**TSCA**

CAS# 9000-30-0 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 9000-30-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Not available.

Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 9000-30-0: 0

Canada - DSL/NDSL

CAS# 9000-30-0 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 1/19/1998

Revision #6 Date: 2/18/2008

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.



CAS

Please Enter CAS NO./Product Name

Search

MSDS >> Hydroxycitronellal(CAS:107-75-5)



MSDS Of Hydroxycitronellal(CAS:107-75-5)

M A T E R I A L S A F E T Y D A T A S H E E T

Hydroxycitronellal(107-75-5),SN:AL-008801

Section 1. - - - - - Chemical Identification - - - - -

Product Name:Hydroxycitronellal

CAS.107-75-5

Product No.:AL-008801

Section 2. - - - - - Company Identification - - - - -

Company Name: Yipeng Chemical

Contact Company:www.yipengchem.com

Section 3. - - - - - Hazards Identification - - - - -

Label precautionary statements

Caution:

Toxicity and hazard information unavailable.

Exercise due care

Section 4. - - - - - First-Aid Measures - - - - -

In case of contact, immediately flush eyes with copious amounts of Water for at least 15

minutes.In case of contact, immediately wash skin with soap and copious amounts of water.If

inhaled, remove to fresh air. If not breathing give artificial Respiration. If breathing is difficult, gi

- MN24[1-pentyl-N-(naphthalen-1-yl)-1H-indole-3-carboxamide(1338925-11-3)

- 5FAKB48(OTSN-028838)

- 1,3,4,6-Tetra-O-Acetyl-2-Deoxy-2-Phthalamido-Beta-D-Glucopyranoside(10022-13-6)

- Isobutyl Oleate(10024-47-2)

- 1-Phenyl-4-(4,4,5,5-Tetramethyl-1,3,2-Dioxaborolan-2-yl)-1H-Pyrazole(1002334-12-4)

- 1-Methyl-3-Phenyl-4-(4,4,5,5-Tetramethyl-1,3,2-Dioxaborolan-2-yl)-1H-Pyrazole(1002334-06-6)

- 1,3,4,6-Tetra-O-Acetyl-2-Deoxy-2-Phthalamido-Beta-D-Glucopyranose(100202-39-9)

- (R)-(+)-Mandelonitrile(10020-96-9)

- N-Octylmonooxyethylene(10020-43-6)

- Ammonium Stearate(1002-89-7)

- 1-Chlorodecane(1002-69-3)

- 1-Methylindazole-7-Boronic Acid(1001907-59-0)

- 2-(6-Methylpyridin-3-Yl)Ethanol(100189-17-1)

- 3-Amino-1-(2-Chloro-4-Fluorobenzyl)Pyrazole(1001757-50-1)

- 4-Amino-6-Chloro-Pyridine-3-Carbaldehyde(1001756-21-3)

- Triethanolamine Phosphate(10017-56-8)

- (R)-2-(Benzo[D][1,3]Dioxol-5-Yl)-2-Hydroxyacetone(10017-05-7)

- (S)-(-)-2,2'-Bis(Di-P-Tolylphosphino)-1,1'-Binaphthyl(100165-88-6)

ve oxygen.If swallowed, wash out mouth with water provided person is conscious.Call a physician.

Wash contaminated clothing before reuse.

Section 5. - - - - - Fire Fighting Measures - - - - -

Extinguishing media Water spray.Carbon dioxide, dry chemical powder or appropriate foam.Special firefighting procedures Wear self-contained breathing apparatus and protective clothing to Prevent contact with skin and eyes Unusual fire and explosions hazards Emits toxic fumes under fire conditions.

Section 6. - - - - - Accidental Release Measures- - - - -

Wear respirator, chemical safety goggles, rubber boots and heavy Rubber gloves.Sweep up, place in a bag and hold for waste disposal.Avoid raising dust.Ventilate area and wash spill site after material pickup is complete.

Section 7. - - - - - Handling And Storage- - - - -

Refer to section 8.

Section 8. - - - - - Exposure Controls/Personal Protection- - - - -

Chemical safety goggles.

Compatible chemical-resistant gloves

Niosh/msha-approved respirator.

Safety shower and eye bath.

Mechanical exhaust required.

Avoid inhalation.

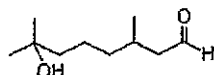
Avoid contact with eyes, skin and clothing.

Avoid prolonged or repeated exposure.

Keep tightly closed.

Store in a cool dry place.

Section 9. - - - - - Physical And Chemical Properties - - - - -



Product Name:7-Hydroxycitronellal

Synonyms: Hydroxycitronellal

Molecular Formula: C₁₀H₂₀O₂

Molecular Weight: 172.26

InChI: InChI=1/C10H20O2/c1-9(6-8-11)5-4-7-10(2,3)12/h8-9,12H,4-7H2,1-3H3

• 3-Amino-2-Cyano-5-Methylpyridine(1001635-30-8)

• 5-Chloro-2-Iodobenzaldehyde(1001334-22-0)

• N-Acetyleneethylenediamine(1001-53-2)

• Tetracosanyl Tetracosanoate(1001-43-0)

• 4-Isopropyl-5-Methylfuran-2-Carbaldehyde(1000993-65-6)

• 2-Chloro-4-Pyridinesulfonyl Chloride(1000933-25-4)

• 1-(2-(Pyrrolidin-1-Yl)Ethyl)-4-(4,4,5,5-Tetramethyl-1,3,2-Dioxaborolan-2-Yl)-1H-Pyrazole(1000802-52-7)

• 2,3-(Methylenedioxy)Phenylaceticacid(100077-49-4)

• Methyl 3-Amino-5-Phenylthiophene-2-Carboxylate(100063-22-7)

• Methyl 4-Oxo-3,4-Dihydroquinazoline-6-Carboxylate(1000578-10-8)

• Tert-Butyl 3-Bromo-6,7-Dihydrothieno[3,2-C]Pyridine-5(4H)-Carboxylate(1000577-81-0)

• 2-Methyl-4-(Trifluoromethoxy)Phenylisothiocyanate(1096-4)

• 7-Tert-Butyl 2-Ethyl 3-Bromo-5,6-Dihydroimidazo[1,2-A]Pyrazine-2,7(8H)-Dicarboxylate(1000576-75-9)

• 1-Bromo-2-Chloro-3-Fluoro-4-Iodobenzene(1000573-03-4)

• 3-(4-(Trifluoromethoxy)Phenyl)Propan-1-ol(1000519-40-3)

• 4-Aminopyridine-2-Carboxylic Acid(100047-36-7)

• 3'-Trifluoromethyl-Biphenyl-4-Carbaldehyde(100036-64-4)

• 6-Bromo-5-Methyl-1H-Indazole(1000343-69-0)

• 4-Bromo-3-Chloro-1H-Indazole(1000343-46-3)

• 3-Amino-2-Methyl-5-Bromo Benzoic Acid Methyl Ester(1000342-11-9)

• 7-Methyl-1H-Indazole-3-Carbaldehyde(1000340-51-1)

• 3-Nitro-4-(2,2,2-Trifluoroethoxy)Aniline(1000339-84-3)

EINECS: 203-518-7

Hazard Symbols:  Xi.Irritant;

Risk Codes: R38;

R41;

Safety Description: S26;;

S39;

Section 10. - - - - - Stability And Reactivity - - - - -

Incompatibilities Hazardous combustion or decomposition products

Toxic fumes of.

Section 11. - - - - - Toxicological Information - - - - -

Acute effects May be harmful by inhalation, ingestion, or skin absorption

May cause eye irritation.

May cause skin irritation

To the best of our knowledge, the chemical, physical, and Toxicological properties have not been thoroughly investigated.

Section 12. - - - - - Ecological Information - - - - -

N/A

Section 13. - - - - - Other Information - - - - -

The information above is believed to be accurate and represents the best information currently available to us.However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall yipengchem.com be liable for any claims, losses, or damages

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CHEMOTECHNIQUE
DIAGNOSTICS

SAFETY DATA SHEET

I-002

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name ISOEUGENOL 2.0% pet
Article Number I-002

Applications Diagnosis of contact allergy

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION

Health hazards

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy
Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation.

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
ISOEUGENOL	97-54-1	2.0%	Acute tox. Oral 4, Skin irrit. 2, Eye irrit. 2, Skin sensit. 1, Spec. targ. org. tox. - single exp. 3; H302, H315, H317, H319, H335

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
ISOEUGENOL	97-54-1	2.0%	Xn; R22, R36/37/38, R43

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

Emergency and first aid procedures

Obtain medical attention.



CHEMOTECHNIQUE DIAGNOSTICS

5. FIRE-FIGHTING MEASURES*

Suitable extinguish media

CO₂, powder or water spray Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Fragrance
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite
Danger of explosion*	Product does not present an explosion hazard
Density*	No data available.
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only



CHEMOTECHNIQUE DIAGNOSTICS

10. STABILITY AND REACTIVITY

Incompability

May react with strong oxidizing agents.

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Acute tox. Oral 4	Acute toxicity, Oral (Category 4)
Skin irrit. 2	Skin irritation (Category 2)
Eye irrit. 2	Eye irritation (Category 2)
Skin sensit. 1	Skin sensitization (Category 1)
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H335	May cause respiratory irritation
Xn	Harmful
R22	Harmful if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin
R43	May cause sensitisation by skin contact



CHEMOTECHNIQUE DIAGNOSTICS

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Karaya gum

Product Number : G0503

Brand : Sigma

Supplier : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +1 800-325-5832

Fax : +1 800-325-5052

Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555

Preparation Information : Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

No known OSHA hazards

Not a dangerous substance according to GHS.

HMIS Classification

Health hazard: 0

Flammability: 0

Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation : May be harmful if inhaled. May cause respiratory tract irritation.

Skin : May be harmful if absorbed through skin. May cause skin irritation.

Eyes : May cause eye irritation.

Ingestion : May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Tragacanth Indian
Gum karaya from sterculia tree

No ingredients are hazardous according to OSHA criteria.

4. FIRST AID MEASURES

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIREFIGHTING MEASURES**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Avoid dust formation. Avoid breathing vapors, mist or gas.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment**Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

General industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	solid
Colour	no data available

Safety data

pH	no data available
Melting point/freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

LD50 Oral - rat - 9,100 mg/kg

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

Synergistic effects

no data available

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards
No known OSHA hazards

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
No SARA Hazards

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Karaya gum

CAS-No.
9000-36-6

Revision Date

New Jersey Right To Know Components

Karaya gum

CAS-No.
9000-36-6

Revision Date

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information
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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.



CHEMOTECHNIQUE
DIAGNOSTICS

SAFETY DATA SHEET

W-001

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name LANOLIN ALCOHOL 30.0% pet
Article Number W-001

Applications Diagnosis of contact allergy.

Manufacturer Chemotechnique Diagnostics AB
 Modemgatan 9
 SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION

Health hazards

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy
Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	70.0%	-
LANOLIN ALCOHOL	8027-33-6	30.0%	-

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	70.0%	-
LANOLIN ALCOHOL	8027-33-6	30.0%	-

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

Emergency and first aid procedures

Obtain medical attention.



CHEMOTECHNIQUE DIAGNOSTICS

5. FIRE-FIGHTING MEASURES*

Suitable extinguish media

CO₂, powder or water spray Fight larger fires with water spray or alcohol resistant foam

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required

Ventilation

Local exhaust

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Yellow to Brown Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only



CHEMOTECHNIQUE DIAGNOSTICS

10. STABILITY AND REACTIVITY

Incompability

May react with strong oxidizing agents.

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides

Hazardous polymerization

Will not occur

11. TOXICOLOGICAL INFORMATION

No data available

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



CHEMOTECHNIQUE
DIAGNOSTICS

SAFETY DATA SHEET

L-006C

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name D-Limonene 10.0% pet
Article Number L-006C

Applications Diagnosis of contact allergy.

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION

Health hazards

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy. Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation.

Medical conditions aggravated by exposure

Dermatitis

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	90.0%	-
D-Limonene	5989-27-5	10.0%	Flamm liquids 3, Skin irrit. 2, Skin sensit. 1, Acute aq. tox. 1, Chron. aq. tox. 1; H226, H315, H317, H410

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	90.0%	-
D-Limonene	5989-27-5	10.0%	Xi, N; R10, R38, R43, R50/53

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Emergency and first aid procedures

Obtain medical attention



CHEMOTECHNIQUE DIAGNOSTICS

5. FIRE-FIGHTING MEASURES*

Suitable extinguish media

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Fragrance
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite.
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available.
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only



CHEMOTECHNIQUE DIAGNOSTICS

10. STABILITY AND REACTIVITY

Incompability

May react with strong oxidizing agents.

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Flamm liquids 3	Flammable liquids (Category 3)
Skin irrit. 2	Skin irritation (Category 2)
Skin sensit. 1	Skin sensitization (Category 1)
Acute aq. tox. 1	Acute aquatic toxicity (Category 1)
Chron. aq. tox. 1	Chronic aquatic toxicity (Category 1)
H226	Brandfarlig vätska och ånga
H315	Irriterar huden
H317	May cause an allergic skin reaction
H410	Very toxic to aquatic life with long lasting effects
Xi	Irritant
N	Dangerous for the environment
R10	Flammable
R38	Irritating to skin
R43	May cause sensitisation by skin contact



CHEMOTECHNIQUE DIAGNOSTICS

R50/53

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material



CHEMOTECHNIQUE
DIAGNOSTICS

SAFETY DATA SHEET

M-002

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name Article Number **MENTHOL 2.0% pet**
M-002

Applications Diagnosis of contact allergy.

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION

Health hazards

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy
Localized dermal allergic reaction may occur at test site

Signs and symptom of exposure

Dermal irritation.

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
MENTHOL	89-78-1	2.0%	Skin irrit. 2, Serious eye dam 1, Spec. targ. org. tox. - single exp. 3, H315, H318, H335

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
MENTHOL	89-78-1	2.0%	Xi; R37/38, R41

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Emergency and first aid procedures

Obtain medical attention.



CHEMOTECHNIQUE DIAGNOSTICS

5. FIRE-FIGHTING MEASURES*

Suitable extinguish media

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available.
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only



CHEMOTECHNIQUE DIAGNOSTICS

10. STABILITY AND REACTIVITY

Incompatibility

May react with strong oxidizing agents.

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides

Hazardous polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Skin irrit. 2	Skin irritation (Category 2)
Serious eye dam. 1	Serious eye damage (Category 1)
Spec. targ. org. tox - single exp. 3	Specific target organ toxicity - single exposure (Category 3)
H315	Causes skin irritation
H318	Causes serious eye damage
H335	May cause respiratory irritation
Xi	Irritant
R37/38	Irritating to respiratory system and skin
R41	Risk of serious damage to eyes

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.



CHEMOTECHNIQUE DIAGNOSTICS

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



SAFETY DATA SHEET

N-002A

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name Nickel(II)sulfate hexahydrate 5.0% pet
Article Number N-002A

Applications Diagnosis of contact allergy

Manufacturer Chemotechnique Diagnostics AB
 Modemgatan 9
 SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION**Health hazards**

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy
Localized dermal allergic reaction may occur at test site

Signs and symptom of exposure

Dermal irritation.

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]**

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	95.0%	-
Nickel(II)sulfate hexahydrate	10101-97-0	5.0%	Carc. 2, Resp sensit 1, Skin sensit. 1, Acute aq. tox. 1, Chron. aq. tox. 1, Acute tox. Oral 4; H302,H317,H334,H351,H410

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	95.0%	-
Nickel(II)sulfate hexahydrate	10101-97-0	5.0%	Xn,N;R22,40,42/43,50/53

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES**Emergency and first aid procedures**

Obtain medical attention.



5. FIRE-FIGHTING MEASURES*

Suitable extinguish media

CO₂, powder or water spray Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device Wear fully protective suit

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C. Avoid extended exposure to sunlight FOR EXTERNAL USE ONLY.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Green Semi-solid
Odour	Odourless
Melting point*	50°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite.
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only



10. STABILITY AND REACTIVITY

Incompability

May react with strong oxidizing agents.

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides

Hazardous polymerization

Will not occur

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Carc. 2	Carcinogenicity (Category 2)
Resp. sensit. 1	Respiratory sensitization (Category 1)
Skin sensit. 1	Skin sensitization (Category 1)
Acute aq. tox. 1	Acute aquatic toxicity (Category 1)
Chron. aq. tox. 1	Chronic aquatic toxicity (Category 1)
Acute tox. Oral 4	Acute toxicity, Oral (Category 4)
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H351	Suspected of causing cancer
H410	Very toxic to aquatic life with long lasting effects
Xn	Harmful
N	Dangerous for the environment
R22	Harmful if swallowed
R40	Limited evidence of a carcinogenic effect



CHEMOTECHNIQUE DIAGNOSTICS

R42/43
R50/53

May cause sensitization by inhalation and skin contact
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



SAFETY DATA SHEET

O-002

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name Octyl gallate 0.25% pet
Article Number O-002

Applications Diagnosis of contact allergy.

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8 00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION**Health hazards**

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy. Localized dermal allergic reaction may occur at test site

Signs and symptom of exposure

Dermal irritation.

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]**

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	99.75%	-
Octyl gallate	1034-01-0	0.25%	Acute tox. Oral 4, Skin sensit. 1; H302, H317

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	99.75%	-
Octyl gallate	1034-01-0	0.25%	Xn; R22, R43

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES**Emergency and first aid procedures**

Obtain medical attention.

5. FIRE-FIGHTING MEASURES*

Suitable extinguish media



CHEMOTECHNIQUE DIAGNOSTICS

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
For safety reasons unsuitable extinguishing agents
Water with full jet.

Special protective equipment for fire-fighters
Wear self-contained respiratory protective device Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled
Contain and place in a closed container.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage
Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection
Not required.

Ventilation
Local exhaust.

Protective gloves
Disposal gloves.

Eye protection
Not required with normal use.

Work/Hygienic practices
Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite.
Danger of explosion*	Product does not present an explosion hazard
Density*	No data available
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only

10. STABILITY AND REACTIVITY

Incompability
May react with strong oxidizing agents.

Stability



CHEMOTECHNIQUE DIAGNOSTICS

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur

11. TOXICOLOGICAL INFORMATION

No data available

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Acute tox. Oral 4	Acute toxicity, Oral (Category 4)
Skin sensit. 1	Skin sensitization (Category 1)
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
Xn	Harmful
R22	Harmful if swallowed
R43	May cause sensitisation by skin contact

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material

SAFETY DATA SHEET

Creation Date 10-Nov-2010

Revision Date 26-Dec-2021

Revision Number 6

1. Identification

Product Name Petrolatum, white

Cat No. : AC417090000; AC417090010; AC417090100

CAS No 8009-03-8
Synonyms Petroleum jelly

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number For information US call: 001-800-ACROS-01 / Europe call: +32 14 57 52 11
Emergency Number US:001-201-796-7100 / Europe: +32 14 57 52 99
CHEMTREC Tel. No.US:001-800-424-9300 / Europe:001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label Elements

None required

Hazards not otherwise classified (HNOC)

None identified

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Petrolatum, white	8009-03-8	>95

4. First-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Skin Contact	Wash with plenty of soap and water
Inhalation	Remove from exposure, lie down. Remove to fresh air. If symptoms persist, call a physician
Ingestion	Do NOT induce vomiting. Get medical attention.
Most important symptoms and effects	No information available.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Water spray. Carbon dioxide (CO ₂). Dry chemical. Chemical foam.
Unsuitable Extinguishing Media	No information available
Flash Point	> 150 °C
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products
Carbon monoxide (CO). Carbon dioxide (CO₂).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
0	0	0	N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment as required. Ensure adequate ventilation.
Environmental Precautions	See Section 12 for additional Ecological Information.
Methods for Containment and Clean Up	Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Extremely slippery when spilled.

7. Handling and storage

Handling	Avoid contact with skin and eyes. Do not breathe mist/vapors/spray.
Storage.	Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Incompatible Materials. Strong oxidizing agents.

8. Exposure controls / personal protection

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures None under normal use conditions.

Personal Protective Equipment

- Eyeface Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
- Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.
- Respiratory Protection** No protective equipment is needed under normal use conditions.
- Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Solid paste
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	50 - 56 °C / 122 - 132.8 °F
Boiling Point/Range	> 300 °C / > 572 °F
Flash Point	> 150 °C
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Specific Gravity	0.840
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	ca 7 mm ² /s (100°C)

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products.
Incompatible Materials	Strong oxidizing agents

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO₂)

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Petrolatum, white	>5000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. The classification as a carcinogen need not apply if the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen. This note applies only to certain complex oil derived substances in Annex I.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Petrolatum, white	8009-03-8	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Petrolatum, white	Not listed	>100 mg/L/96h (Pimephales promelas)	Not listed	>10000 mg/L/48h

Persistence and Degradability Insoluble in water

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment due its low water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Petrolatum, white	8009-03-8	X	ACTIVE	-

Legend:
 TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
 X - Listed
 - - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Petrolatum, white	8009-03-8	X	-	232-373-2	X	-		X	X	KE-28170

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313 Not applicable
SARA 311/312 Hazard Categories See section 2 for more information
CWA (Clean Water Act) Not applicable
Clean Air Act Not applicable
OSHA - Occupational Safety and Health Administration Not applicable
CERCLA Not applicable
California Proposition 65 This product does not contain any Proposition 65 chemicals.
U.S. State Right-to-Know Regulations Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ): N
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade Slight risk, Grade 1

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Petrolatum, white	-	Use restricted. See item 28 (see link for restriction details) Use restricted. See item 75. (see link for restriction details)	-

<https://echa.europa.eu/substances-restricted-under-reach>

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Petrolatum, white	8009-03-8	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Petrolatum, white	8009-03-8	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

Prepared By Regulatory Affairs
 Thermo Fisher Scientific
 Email: EMSDS.RA@thermofisher.com

Creation Date 10-Nov-2010
Revision Date 26-Dec-2021
Print Date 26-Dec-2021
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer
 The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS



Penta International Corporation

50 Okner Parkway Livingston, NJ 07039-1604 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	ALPHA PINENE
Product Number	16-52600
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

OSHA Hazards

Flammable liquid, Skin sensitiser, Irritant

GHS Classification

Flammable liquids (Category 3), H226

Skin irritation (Category 2), H315

Skin sensitisation (Category 1), H317

Aspiration hazard (Category 1), H304

Acute aquatic toxicity (Category 3), H402

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements

Pictogram:



Signal word

Warning

Hazard statement(s)

H226 Flammable liquid and vapour.
H303 May be harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H402 Harmful to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.
P301 P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P303 P361 P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305 P351 P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331 Do NOT induce vomiting.
P333 P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard 2
Flammability 3
Physical hazards 1

NFPA Rating

Health hazard 2
Fire 3
Reactivity Hazard 0

Potential Health Effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Skin

May be harmful if absorbed through skin. Causes skin irritation.

Eyes

Causes eye irritation.

Ingestion

May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYM	alpha-Pinene		
Formula	C10 H16		
Molecular Weight	136.24 g/mol		
CAS-No	EC-No	Index-No.	Concentration
80-56-8	201-291-9		

4. FIRST-AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary

Hazardous combustion products

Hazardous decomposition products formed under fire conditions - Carbon oxides

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	LIQUID
Colour	COLORLESS TO PALE YELLOW

Safety data

pH	no data available
Melting point (°C)	no data available
Boiling point (°C)	no data available
Flash point (°F) Closed cup	93
Ignition temperature	255 °C (491 °F)
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	0.859
Water solubility	INSOLUBLE
Partition coefficient: n-octanol/water	log Pow: 4.834
Relative vapour density	no data available
Odor	PINE
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY**Chemical stability**

Stable under recommended storage conditions.

Possibility of hazardous reactions

Vapours may form explosive mixture with air

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Oral LD50 - rat - 3,700 mg/kg

Remarks: Brain and Coverings:Recordings from specific areas of CNS. Behavioral:Somnolence (general depressed activity). Lungs, Thorax, or Respiration:Other changes.

Inhalation LC50- no data available

Dermal LD50 - rabbit - > 5,000 mg/kg

Other information on acute toxicity

no data available

Skin corrosion/irritation

Skin - Human -

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

May cause allergic skin reaction.

Germ cell mutagenicity

no data available

Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin. Causes skin irritation.

Eyes

Causes eye irritation.

Synergistic effects

no data available

Additional Information

RTECS: DT7000000

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 0.28 mg/l - 96.0 h

Toxicity to daphnia LC50 - Daphnia magna (Water flea) - 41 mg/l - 48 h
and other aquatic
invertebrates

Persistence and degradability

Biodegradability Biotic/Aerobic
Result: - Readily biodegradable.

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 2368 Class: 3 Packing group: III
Proper shipping name: ALPHA-PINENE

IMDG

UN number: 2368 Class: 3 Packing group: III
Proper shipping name: ALPHA-PINENE

IATA

UN number: 2368 Class: 3 Packing group: III
Proper shipping name: ALPHA-PINENE

15. REGULATORY INFORMATION

OSHA Hazards

Flammable liquid, Skin sensitiser, Irritant

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
?-Pinene	80-56-8	1993-04-24

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
?-Pinene	80-56-8	1993-04-24

New Jersey Right To Know Components

	CAS-No.	Revision Date
?-Pinene	80-56-8	1993-04-24

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume

liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Revision Date: 11/01/2020

Print Date: 4/01/2022

MSDS Number **T7683** * * * * * *Effective Date: 03/28/02* * * * * * *Supersedes: 12/20/01*

MSDS MATERIAL SAFETY DATA SHEET

CHEMTREC: 800-424-9300 (USA)

703-527-3887(Outside USA and Canada)

CANUTEC: 613-996-6666

From: Mallinckrodt Baker, Inc
222 Red School Lane
Phillipsburg, NJ 08865

NOTE: Use CHEMTREC and CANUTEC
phone numbers only in the event
of a chemical emergency.

Emergency Telephone Number: 908-859-2151

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

MALLINCKRODT

J. T. BAKER

Polysorbate 80

1. Product Identification

Synonyms: Polyoxyethylene (20) sorbitan monooleate; Polysorbate 80 NF

CAS No.: 9005-65-6

Molecular Weight: Not applicable.

Chemical Formula: Not applicable.

Product Codes:

J.T. Baker: 2903, 4067, 4091, X257

Mallinckrodt: 7091, H286

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Polysorbate 80	9005-65-6	90 - 100%	Yes

3. Hazards Identification

Emergency Overview

CAUTION! MAY CAUSE EYE IRRITATION.

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 1 - Slight
Flammability Rating: 1 - Slight
Reactivity Rating: 1 - Slight
Contact Rating: 1 - Slight
Lab Protective Equip: GOGGLES; LAB COAT, PROPER GLOVES
Storage Color Code. Green (General Storage)

Potential Health Effects

Inhalation:

Not expected to be a health hazard.

Ingestion:

Not expected to be a health hazard via ingestion. Large doses may produce abdominal spasms, diarrhea.

Skin Contact:

No adverse effects expected. May cause irritation or sensitization in sensitive individuals.

Eye Contact:

May cause mild irritation, possible reddening.

Chronic Exposure:

No information found.

Aggravation of Pre-existing Conditions:

No information found.

4. First Aid Measures

Inhalation:

Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact:

Not expected to require first aid measures. Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

5. Fire Fighting Measures

Fire:

Flash point: 148C (298F) CC

Not considered to be a fire hazard.

Explosion:

Not considered to be an explosion hazard.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Clean-up personnel may require protective clothing. Absorb in sand or other inert material. Scoop up and containerize for disposal. Flush trace residues to sewer with soap and water. Containerized waste may be sent to an approved waste disposal facility.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid), observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System:

Not expected to require any special ventilation.

Personal Respirators (NIOSH Approved):

Not expected to require personal respirator usage.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

Amber liquid.

Odor:

Odorless.

Solubility:

Soluble in water.

Specific Gravity:

1.08

pH:

5-7 (5% aqueous solution)

% Volatiles by volume @ 21C (70F):

No information found.

Boiling Point:

> 100C (> 212F)

Melting Point:

No information found.

Vapor Density (Air=1):

No information found.

Vapor Pressure (mm Hg):

< 1 0 @ 20C (68F)

Evaporation Rate (BuAc=1):

No information found.

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Strong oxidizers, acids.

Conditions to Avoid:

Incompatibles.

11. Toxicological Information

Oral Rat LD50: 34500 ul/kg. Irritation Data (std Draize, rabbit): Eye = 150 mg, mild. Investigated as a tumorigen, mutagen, reproductive effector.

-----\Cancer Lists\-----

---NTP Carcinogen---

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Polysorbate 80 (9005-65-6)	No	No	None

12. Ecological Information

Environmental Fate:

No information found.

Environmental Toxicity:

No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements

14. Transport Information

Not regulated.

5. Regulatory Information

```
-----\Chemical Inventory Status - Part 1\-----
Ingredient                                     TSCA  EC   Japan  Australia
-----
Polysorbate 80 (9005-65-6)                   Yes  No   Yes    Yes
```

```
-----\Chemical Inventory Status - Part 2\-----
Ingredient                                     --Canada--
Korea  DSL  NDSL  Phil.
-----
Polysorbate 80 (9005-65-6)                   Yes  Yes  No     Yes
```

```
-----\Federal, State & International Regulations - Part 1\-----
Ingredient                                     -SARA 302-   -SARA 313-
RQ      TPQ      List  Chemical Catg.
-----
Polysorbate 80 (9005-65-6)                   No     No     No     No
```

```
-----\Federal, State & International Regulations - Part 2\-----
Ingredient                                     -RCRA-      -TSCA-
CERCLA   261.33  8(d)
-----
Polysorbate 80 (9005-65-6)                   No         No         No
```

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No
 Reactivity: No (Pure / Liquid)

Australian Hazchem Code: None allocated.

Poison Schedule: None allocated.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 1 Flammability: 0 Reactivity: 0

Label Hazard Warning:

CAUTION! MAY CAUSE EYE IRRITATION.

Label Precautions:

Avoid contact with eyes.

Keep container closed.

Wash thoroughly after handling.

Label First Aid:

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

Product Use:

Laboratory Reagent. NOT INTENDED FOR INJECTABLE DRUG USE.

Revision Information:

MSDS Section(s) changed since last revision of document include: 3

Disclaimer:

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**Prepared by: Environmental Health & Safety
Phone Number: (314) 654-1600 (U.S.A.)**



CHEMOTECHNIQUE
DIAGNOSTICS

SAFETY DATA SHEET

P-018

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name PROPIONIC ACID 3.0% pet
Article Number P-018

Applications Diagnosis of contact allergy.

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION

Health hazards

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy. Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	97.0%	-
PROPIONIC ACID	79-09-4	3.0%	Flamm liquids 3, Skin corr. 1B; H226, H314

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	97.0%	-
PROPIONIC ACID	79-09-4	3.0%	C, R10, R34

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

Emergency and first aid procedures

Obtain medical attention.



CHEMOTECHNIQUE DIAGNOSTICS

5. FIRE-FIGHTING MEASURES*

Suitable extinguish media

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Ivory White Semi-solid

Odour

Odourless

Melting point*

50-55°C

Boiling point*

No data available

Flash point*

>100°C

Self ignition*

Product does not self ignite

Danger of explosion*

Product does not present an explosion hazard

Density*

No data available

Solubility in/Miscibility with Water*

Insoluble

*Data is shown for petrolatum only



CHEMOTECHNIQUE DIAGNOSTICS

10. STABILITY AND REACTIVITY

Incompatibility

May react with strong oxidizing agents

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Flamm. liquids 3	Flammable liquids (Category 3)
Skin corr. 1B	Skin corrosion (Category 1B)
H226	Flammable liquid and vapour
H314	Causes severe skin burns and eye damage
C	Corrosive
R10	Flammable
R34	Causes burn

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



SAFETY DATA SHEET

P-021

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name **PROPYL GALLATE 1.0%pet**
Article Number P-021

Applications Diagnosis of contact allergy

Manufacturer Chemotechnique Diagnostics AB
Modergatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16 00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION**Health hazards**

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy. Localized dermal allergic reaction may occur at test site

Signs and symptom of exposure

Dermal irritation.

Medical conditions aggravated by exposure

Dermatitis

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]**

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	99.0%	-
PROPYL GALLATE	121-79-9	1.0%	Acute tox. Oral 4, Skin sensit. 1; H302, H317

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	99.0%	-
PROPYL GALLATE	121-79-9	1.0%	Xn, R22, R43

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES**Emergency and first aid procedures**

Obtain medical attention

5. FIRE-FIGHTING MEASURES*

Suitable extinguish media



CHEMOTECHNIQUE DIAGNOSTICS

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
For safety reasons unsuitable extinguishing agents
Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite
Danger of explosion*	Product does not present an explosion hazard
Density*	No data available
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only

10. STABILITY AND REACTIVITY

Incompability

May react with strong oxidizing agents.

Stability



CHEMOTECHNIQUE DIAGNOSTICS

Stable at recommended storage conditions

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides

Hazardous polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Acute tox Oral 4	Acute toxicity, Oral (Category 4)
Skin sensit 1	Skin sensitization (Category 1)
H302	Harmful if swallowed
H317	May cause an allergic skin reaction.
Xn	Harmful
R22	Harmful if swallowed
R43	May cause sensitization by skin contact.

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



Material Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section I. Product and Company Identification									
Product Name - Food Color, Red (Powder)	Item Code 30-1650								
Commercial Name Not available	CAS# Not available.								
Synonym(s) Not available	RTECS Not available.								
In case of emergency contact: CHEMTREC (24hr) 1-800-424-9300									
HMIS Label									
Supplier PCCA 9901 South Wilcrest Houston, TX 77099	Phone 1-800-331-2498 Fax 1-800-874-5760								
<table border="1"> <tr> <td>Health Hazard</td> <td>0 - Minimal</td> </tr> <tr> <td>Flammability</td> <td>0 - Minimal</td> </tr> <tr> <td>Reactivity</td> <td>0 - Minimal</td> </tr> <tr> <td>Personal Protection</td> <td>A</td> </tr> </table>		Health Hazard	0 - Minimal	Flammability	0 - Minimal	Reactivity	0 - Minimal	Personal Protection	A
Health Hazard	0 - Minimal								
Flammability	0 - Minimal								
Reactivity	0 - Minimal								
Personal Protection	A								

Section II. Composition and Information on Ingredients				
Name	CAS#	% by Weight	TLV/PEL	LC50/LD50

Section III. Hazards Identification

Potential Acute Health Effects May cause irritation by direct contact. May cause respiratory tract irritation.

Potential Chronic Health Effects Not available.

Section IV. First Aid Measures

Eye Contact Flush eyes with water for at least 15 minutes. If irritation persists, contact a doctor.

Skin Contact Wash with soap and plenty of water. If irritation persists, contact a doctor.

Inhalation Remove individual to fresh air.

Ingestion If large quantities are ingested, consult your physician.

Other

Section V. Fire and Explosion Data

Flash Points Not available.

Flammable Limits Not available.

Products of Combustion Not available.

Fire Hazards Not available.

Explosion Hazards Not available.

Fire Fighting Media and Instructions Not available.

Extinguishing Media to Avoid Not available.

Other

Section VI. Accidental Release Measures

Spill Cleanup Instructions Sweep up large spills, clean up residue with warm water and soap.



Material Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400 1-1998

Section VII. Handling and Storage

Handling and Storage Store in a tightly sealed container.
Info.

Section VIII Exposure Controls/Personal Protection

Personal Protection Splash goggles. Dust mask. Gloves.

Other Protective Measures and Equipment Not available.

Exposure Limits Not available

Section IX. Physical and Chemical Properties

Appearance Red powder

Odor Odorless.

Molecular Weight Not available.

Boiling Point Not available

Melting Point Not available

Specific Gravity Not available.

Vapor Pressure Not available

Vapor Density Not available.

Viscosity Not available.

Solubility Not available

Other

Section X. Stability and Reactivity Data

Stability The product is stable

Conditions to Avoid Not available.

Materials to Avoid Avoid contact with strong alkahnes and oxidizing agents.

Other Corrosivity Non-corrosive in presence of glass Hazardous polymerization will not occur

Section XI. Toxicological Information

Routes of Entry Not available

Toxicity Data Not available

Section XII. Ecological Information

Information Products of Biodegradation: Possibly hazardous short-term degradation products are not likely. However, long-term degradation products may arise. Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Section XIII. Disposal Considerations

Waste Disposal Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section XIV. Transport Information

DOT Classification Not a DOT controlled material (United States)



Material Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section XV. Other Regulatory Information

Regulations

Other

Section XVI. Other Information

Other



Penta International Corporation

50 Okner Parkway Livingston, NJ 07039-1604 | Tel: (973)740-2300 | Fax: (973)740-1839
www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	ROSEMARY OIL FCC
Product Number	18-31005
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

OSHA Hazards

Combustible Liquid, Irritant

Other hazards which do not result in classification

Rubefacient.

GHS Classification

Flammable liquids (Category 3)

Skin irritation (Category 2)

Eye irritation (Category 2A)

Specific target organ toxicity - single exposure (Category 3), Respiratory system

GHS Label elements, including precautionary statements

Pictogram:



Signal word

Warning

Hazard statement(s)	
H226	Flammable liquid and vapour.
H303	May be harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Precautionary statement(s)	
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 P361 P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 P351 P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/ physician if you feel unwell.
P321	Specific treatment (see supplemental first aid instructions on this label).
P332 P313	If skin irritation occurs: Get medical advice/ attention.
P337 P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P370 P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 P233	Store in a well-ventilated place. Keep container tightly closed.
P403 P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard	1
Flammability	2
Physical hazards	1

NFPA Rating

Health hazard	1
Fire	2
Reactivity Hazard	0

Potential Health Effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No	EC-No	Index-No.	Concentration
8000-25-7			

4. FIRST-AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

Further information

Use water spray to cool unopened containers

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin and body protection

Impervious clothing, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	LIQUID
Colour	COLORLESS TO PALE YELLOW

Safety data

pH	no data available
Melting point (°C)	no data available
Boiling point (°C)	no data available
Flash point (°F) Closed cup	114
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	0.894
Water solubility	INSOLUBLE
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odor	STRONG, FRESH, MINTY-FOREST
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

LD50 Oral - rat - 5,000 mg/kg

Inhalation LC50

no data available

Dermal LD50

LD50 Dermal - rabbit - > 10,000 mg/kg

Other information on acute toxicity

no data available

Skin corrosion/irritation

Skin - rabbit -

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin. Causes skin irritation.

Eyes

Causes eye irritation.

Signs and Symptoms of Exposure

Dermatitis, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

RTECS: VL0445000

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 1993 Class: 3 Packing group: III
Proper shipping name: FLAMMABLE LIQUID NOS

IMDG

UN number: 1993 Class: 3 Packing group: III
Proper shipping name: FLAMMABLE LIQUID NOS

IATA

UN number: 1993 Class: 3 Packing group: III
Proper shipping name: FLAMMABLE LIQUID NOS

15. REGULATORY INFORMATION

OSHA Hazards

Combustible Liquid, Irritant

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

No components are subject to the Pennsylvania Right to Know Act.

New Jersey Right To Know Components

No components are subject to the New Jersey Right to Know Act.

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume

liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Revision Date: 11/01/2020

Print Date: 4/01/2022

Material Safety Data Sheet

Salicylaldehyde hydrazone, 98%

ACC# 77912

Section 1 - Chemical Product and Company Identification

MSDS Name: Salicylaldehyde hydrazone, 98%**Catalog Numbers:** AC218960000, AC218960250**Synonyms:** 2-Hydroxybenzaldehyde hydrazone; Salicylhydrazone; Salicylic aldehyde hydrazone; Salicylidene hydrazone; Salzone.**Company Identification:**

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01**For emergencies in the US, call CHEMTREC:** 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
3291-00-7	Benzaldehyde, 2-hydroxy-, hydrazone	98	221-953-0

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: shiny flakes.

Caution! May cause eye, skin, and respiratory tract irritation. May be harmful if swallowed, inhaled, or absorbed through the skin. The toxicological properties of this material have not been fully investigated.**Target Organs:** No data found.**Potential Health Effects****Eye:** May cause eye irritation.**Skin:** May cause skin irritation. May be harmful if absorbed through the skin.**Ingestion:** May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed.**Inhalation:** May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May be harmful if inhaled.**Chronic:** No information found.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion. Runoff from fire control or dilution water may cause pollution.

Extinguishing Media: Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 1; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid breathing dust.

Storage: Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash

facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Benzaldehyde, 2-hydroxy-, hydrazone	none listed	none listed	none listed

OSHA Vacated PELs: Benzaldehyde, 2-hydroxy-, hydrazone: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Flakes

Appearance: slightly yellow - shiny

Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 96-99 deg C

Decomposition Temperature: Not available.

Solubility: Not available.

Specific Gravity/Density: Not available.

Molecular Formula: C₇H₈N₂O

Molecular Weight: 136.15

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Dust generation, excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported

Section 11 - Toxicological Information

RTECS#:

CAS# 3291-00-7 unlisted.

LD50/LC50:

Not available.

Carcinogenicity:

CAS# 3291-00-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found**Teratogenicity:** No information found**Reproductive Effects:** No information found**Mutagenicity:** No information found**Neurotoxicity:** No information found**Other Studies:**

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.**RCRA U-Series:** None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated	Not Regulated
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL**TSCA**

CAS# 3291-00-7 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

CA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 3291-00-7 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Not available.

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 3291-00-7: No information available.

Canada - DSL/NDSL

CAS# 3291-00-7 is listed on Canada's NDSL List.

Canada - WHMIS

not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

~~MSDS Creation Date: 9/02/1997~~

~~Revision #6 Date: 3/16/2007~~

The information above is believed to be accurate and represents the best information currently available to us. However, we make no

warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.



Penta International Corporation

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www.pentamfg.com | E-mail: sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	SESAME OIL USP/NF
Product Number	19-15000
Brand	Penta
Identified Uses	Manufacture of substances
Company	Penta International Corporation 50 Okner Parkway Livingston NJ 07039-1604 U.S.A.
Telephone	(973)740-2300
Fax	(973)740-1839
Emergency Phone	(800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

OSHA Hazards -

No known OSHA hazards

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4)

GHS Label elements, including precautionary statements

Pictogram:



Signal word	Warning
Hazard statement(s)	
H302	Harmful if swallowed.
Precautionary statement(s)	
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.

P301 P312 IF SWALLOWED: Call a POISON CENTER or doctor/
physician if you feel unwell.
P330 Rinse mouth.
P501 Dispose of contents/ container to an approved waste disposal
plant.

HMIS Classification

Health hazard 1
Flammability 1
Physical hazards 1

NFPA Rating

Health hazard 1
Fire 1
Reactivity Hazard 0

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract
irritation.
Skin May be harmful if absorbed through skin. May cause skin
irritation.
Eyes May cause eye irritation.
Ingestion May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula	N/A		
Molecular Weight	N/A		
CAS-No	EC-No	Index-No.	Concentration
8008-74-0	232-370-6		

4. FIRST-AID MEASURES

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point > 200°F

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid breathing vapors, mist or gas.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling

Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

For prolonged or repeated contact use protective gloves.

Eye protection

Safety glasses

Hygiene measures

General industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	colorless to pale yellow

Safety data

pH	no data available
Melting point	no data available
Boiling point	no data available
Flash point	>200 °F - closed cup
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	0.916
Water solubility	INSOLUBLE
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odor	N/A

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Oral LD50 - no data available

Inhalation LC50 -no data available

Dermal LD50 - rabbit- >2,000 mg/kg

Irritation and corrosion

Skin-Human-Mild skin irritation-3h

Sensitization

no data available

Chronic exposure

Carcinogenity-mouse-Subcutaneous

Tumorigenic:Carcinogenic by RTECS criteria. Skin and Appendages: Other: Tumors.

IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin May cause skin irritation.
Eyes	May cause eye irritation.

Additional Information

RTECS: VU3940000

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)
no data available

Ecotoxicity effects
no data available

Further information on ecology
no data available

13. DISPOSAL CONSIDERATIONS

Product
Observe all federal, state and local environmental regulations

Contaminated packaging
Dispose of as unused product

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards
No known OSHA hazards.

DSL Status

All components of this product are on the Canadian DSL list.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Oils, sesame CAS-No. 8008-74-0

New Jersey Right To Know Components

Oils, sesame CAS-No. 8008-74-0

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.



CHEMOTECHNIQUE
DIAGNOSTICS

SAFETY DATA SHEET

S-001

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name SODIUM BENZOATE 5.0% pet
Article Number S-001

Applications Diagnosis of contact allergy.

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8 00-16 00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION

Health hazards

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy. Localized dermal allergic reaction may occur at test site

Signs and symptom of exposure

Dermal irritation.

Medical conditions aggravated by exposure

Dermatitis

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	95.0%	-
SODIUM BENZOATE	532-32-1	5.0%	Eye irrit. 2, H319

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	95.0%	-
SODIUM BENZOATE	532-32-1	5.0%	Xi, R36

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

Emergency and first aid procedures

Obtain medical attention.



CHEMOTECHNIQUE DIAGNOSTICS

5. FIRE-FIGHTING MEASURES*

Suitable extinguish media

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ivory White Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite
Danger of explosion*	Product does not present an explosion hazard
Density*	No data available.
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only



CHEMOTECHNIQUE DIAGNOSTICS

10. STABILITY AND REACTIVITY

Incompability

May react with strong oxidizing agents.

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

No data available

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Eye irrit. 2	Eye irritation (Category 2)
H319	Causes serious eye irritation
X _i	Irritant
R36	Irritating to eyes

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



MSDS MATERIAL SAFETY DATA SHEET

HI-VALLEY CHEMICAL INC. LAB SUPPLY
 5173 WEST 850 NORTH CENTERVILLE, UTAH 84014
 (801) 295-9591 • www.hvchemical.com

SODIUM BISULFATE

1. Product Identification

Synonyms: Sodium hydrogen sulfate; sodium acid sulfate; sulfuric acid, monosodium salt, monohydrate

CAS No.: 7681-38-1 (Anhydrous)

Molecular Weight: 138.08

Chemical Formula: NaHSO₄ · H₂O

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Sodium Bisulfate	7681-38-1	7681-38-1	Yes

3. Hazards Identification

Emergency Overview

DANGER! CORROSIVE. CAUSES BURNS TO ANY AREA OF CONTACT. MAY BE HARMFUL OR FATAL IF SWALLOWED.

Health Rating: 2 - Moderate

Flammability Rating: 0 - None

Reactivity Rating: 0 - None

Contact Rating: 3 - Severe (Corrosive)

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES

Storage Color Code: White (Corrosive)

Potential Health Effects

Inhalation:

Inhalation produces damaging effects on the mucous membranes and upper respiratory tract. Symptoms may include irritation of the nose and throat, and labored breathing. May cause lung edema, a medical emergency.

Ingestion:

Corrosive. Swallowing can cause severe burns of the mouth, throat, and stomach, leading to death. Can cause sore throat, vomiting, diarrhea.

Skin Contact:

Corrosive. Symptoms of redness, pain, and severe burn can occur.

Eye Contact:

Acidic irritant. Pain, tearing and redness can occur. Crystalline dust may also be abrasive. Solutions are acidic and splashes may cause eye damage.

Chronic Exposure:

Lung irritation, tracheal bronchitis, persistent coughing, and corrosion of teeth are possible effects from long term exposure to dust, mist or fumes from wet moist sodium bisulfate.

Aggravation of Pre-existing Conditions:

No information found.

4. First Aid Measures

Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately.

Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Fire:

Not considered to be a fire hazard.

Explosion:

Not considered to be an explosion hazard.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire. Water may be used to cool containers and to knock down vapors in a fire situation. Do not use water on material itself or allow water to get inside container.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded and engineering controls are not feasible, a half-face respirator with an acid gas cartridge and particulate (NIOSH type N95 or better) filter may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece respirator with an acid gas cartridge and particulate (NIOSH type N100) filter may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical/Chemical Properties

Appearance:

Colorless crystals.

Odor:

Odorless.

Solubility:

Soluble in 100g water.

Density:

2.10

pH:

1.4

% Volatiles by volume @ 21C (70F):

0

Boiling Point:

Not applicable.

Melting Point:

58C (136F)

Vapor Density (Air=1):

No information found.

Vapor Pressure (mm Hg):

No information found.

Evaporation Rate (BuAc=1):

No information found.

10. Stability and Reactivity Data**Stability:**

Stable under ordinary conditions of use and storage. Hygroscopic.

Hazardous Decomposition Products:

Oxides of sulfur and the contained metal.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Strong bases, calcium hypochlorite and sodium carbonate.

Conditions to Avoid:

Moisture, dusting and incompatibles.

11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure. Anhydrous salt has been investigated as a mutagen.

-----\Cancer Lists\-----

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Sodium Bisulfate (7681-38-1)	No	No	None

12. Ecological Information**Environmental Fate:**

No information found.

Environmental Toxicity:

No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or combination of this product may change the waste management options. State and local disposal regulations may differ.

from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. == MSDS Transport Information ==

Domestic (Land, D.O.T.)

Proper Shipping Name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (SODIUM BISULFATE)

Hazard Class: 8

UN/NA: UN3260

Packing Group: III

Information reported for product/size: 12KG

International (Water, I.M.O.)

Proper Shipping Name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (SODIUM BISULFATE)

Hazard Class: 8

UN/NA: UN3260

Packing Group: III

Information reported for product/size: 12KG

International (Air, I.C.A.O.)

Proper Shipping Name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (SODIUM BISULFATE)

Hazard Class: 8

UN/NA: UN3260

Packing Group: III

Information reported for product/size: 12KG

15. == Regulatory Information ==

-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
Sodium Bisulfate (7681-38-1)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----

Ingredient	Korea	--Canada--		
		DSL	NDSL	Phil.
Sodium Bisulfate (7681-38-1)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----

Ingredient	-SARA 302-		-SARA 313-	
	RQ	TPQ	List	Chemical Catg.
Sodium Bisulfate (7681-38-1)	No	No	No	No

-----\Federal, State & International Regulations - Part 2\-----

Ingredient	CERCLA	-RCRA-	-TSCA-
		261.33	8(d)
Sodium Bisulfate (7681-38-1)	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No
 Reactivity: No (Mixture / Solid)

Australian Hazchem Code: 2X

Poison Schedule: S5

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16 Other Information

NI/PA Ratings: Health: 3 Flammability: 0 Reactivity: 0

Label Hazard Warning:

DANGER! CORROSIVE. CAUSES BURNS TO ANY AREA OF CONTACT. MAY BE HARMFUL OR FATAL IF SWALLOWED.

Label Precautions:

Do not get in eyes, on skin, or on clothing.

Do not breathe dust.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

Label First Aid:

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, DO NOT INDUCE VOMITTING. Give large quantities of water. Never give anything by mouth to an unconscious person. In all cases get medical attention immediately.

Product Use:

Laboratory Reagent.

Disclaimer

High Valley Products, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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Penta International Corporation

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www.pentamfg.com | E-mail sales@pentamfg.com

SAFETY DATA SHEET

Revision Date: 11/01/2020

Print Date: 4/01/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: SODIUM BISULFITE GRANULAR FCC
Product Number: 19-22950
Brand: Penta
Identified Uses: Manufacture of substances
Company: Penta International Corporation
50 Okner Parkway
Livingston NJ 07039-1604 U.S.A.
Telephone: (973)740-2300
Fax: (973)740-1839
Emergency Phone: (800)424-9300 24-Hrs

2. HAZARD(S) IDENTIFICATION

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4)
Acute toxicity, Dermal (Category 5)
Serious eye damage (Category 1)
Acute aquatic toxicity (Category 3)

GHS Label elements, including precautionary statements



Pictogram:

Signal word	Warning
Hazard statement(s)	
H302	Harmful if swallowed.
H313	May be harmful in contact with skin.
H318	Causes serious eye damage.
H402	Harmful to aquatic life.

Precautionary statement(s)

P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear eye protection/ face protection.
P301 P312 P330	IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P305 P351 P338 P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P501	Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Contact with acids liberates toxic gas.

HMIS Classification

Health hazard	1
Flammability	1
Physical hazards	1

NFPA Rating

Health hazard	1
Fire	1
Reactivity Hazard	0

Potential Health Effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms	Sodium hydrogensulfite	
CAS-No	EC-No	Index-No.
7631-90-5	231-548-0	016-064-00-8

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

4. FIRST-AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Conditions of flammability

Not flammable or combustible.

Suitable extinguishing media

Dry powder

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

no data available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Never allow product to get in contact with water during storage. Do not store near acids

Air and moisture sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching concentration and amount of the dangerous substance at the specific workplace. glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)

Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	Solid
Colour	White to yellow white

Safety data

pH	no data available
Melting point (°C)	300
Boiling point (°C)	no data available
Flash point (°F) Closed cup	>200
Ignition temperature	no data available
Autoignitiontemperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure (mm Hg @20 °C)	no data available
Density @25 °C	no data available
Water solubility	Soluble

Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odor	Characteristic
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents, Strong acids

Hazardous decomposition products

no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50 - no data available

Inhalation LC50 - no data available

Dermal LD50 - no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Sodium hydrogensulphite)

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Sodium metabisulphite)
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	Harmful if swallowed.
Skin	Harmful if absorbed through skin Causes skin irritation.
Eyes	Causes eye irritation.

Signs and Symptoms of Exposure

Burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, chest pain

Synergistic effects

no data available

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 3077 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substances, solid, n.o.s.

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards

Harmful by ingestion., Irritant

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed

the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

Sodium hydrogensulphite	CAS-No.	Revision Date
	7631-90-5	2007-03-01

Pennsylvania Right To Know Components

Sodium hydrogensulphite	CAS-No.	Revision Date
	7631-90-5	2007-03-01

New Jersey Right To Know Components

Sodium hydrogensulphite	CAS-No.	Revision Date
	7631-90-5	2007-03-01

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER CATEGORIES

Safety Data Sheet prepared by: Penta

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Revision Date: 11/01/2020

Print Date: 4/01/2022



SAFETY DATA SHEET

S-003

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name SORBIC ACID 2.0% pet
Article Number S-003

Applications Diagnosis of contact allergy

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION**Health hazards**

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy
Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation.

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]**

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
SORBIC ACID	110-44-1	2.0%	Skin irrit. 2, Eye irrit. 2, Spec. targ org. tox. - single exp. 3; H315, H319, H335

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	98.0%	-
SORBIC ACID	110-44-1	2.0%	Xi; R36/37/38

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES**Emergency and first aid procedures**

Obtain medical attention.

5. FIRE-FIGHTING MEASURES*



CHEMOTECHNIQUE DIAGNOSTICS

Suitable extinguish media

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES**Steps to be taken if material is released or spilled**

Contain and place in a closed container

7. HANDLING AND STORAGE**Precautions to be taken in handling and storage**

Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Respiratory protection**

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES.

Appearance	Ivory White Semi-solid
Odour	Odourless
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite.
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available.
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only

10. STABILITY AND REACTIVITY**Incompability**

May react with strong oxidizing agents.



CHEMOTECHNIQUE DIAGNOSTICS

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

No data available

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS**Waste disposal method**

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION**Text of H-statements and R-phrases mentioned in Section 3**

Skin irrit. 2	Skin irritation (Category 2)
Eye irrit 2	Eye irritation (Category 2)
Spec. targ org. tox. - single exp. 3	Specific target organ toxicity - single exposure (Category 3)
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation
Xi	Irritant
R36/37/38	Irritating to eyes, respiratory system and skin.

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



SAFETY DATA SHEET

T-036

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name TOCOPHEROL 100%
Article Number T-036

Applications Diagnosis of contact allergy.

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION**Health hazards**

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy
Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]**

Component	CAS-No.	Content	Classification
TOCOPHEROL	10191-41-0	100.0%	-

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
TOCOPHEROL	10191-41-0	100.0%	-

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES**Emergency and first aid procedures**

Obtain medical attention, if there is discomfort.

5. FIRE-FIGHTING MEASURES***Suitable extinguish media**

CO₂, powder or water spray Fight larger fires with water spray or alcohol resistant foam

For safety reasons unsuitable extinguishing agents

Water with full jet.



CHEMOTECHNIQUE DIAGNOSTICS

Special hazards arising from the substance or mixture
Carbon oxides

Special protective equipment for fire-fighters
Wear self-contained respiratory protective device. Wear fully protective suit.

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled
Contain and place in a closed container. Do not let product enter drains

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage
Store dark at 2-8°C. Avoid extended exposure to sunlight. Store in a well-sealed container FOR EXTERNAL USE ONLY.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection
Not required

Ventilation
Local exhaust

Protective gloves
Disposal gloves.

Eye protection
Not required with normal use.

Work/Hygienic practices
Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Red, Transparent Liquid
Odour	Odourless
Boiling point	200-220°C
Flash point	113°C – closed cup
Self ignition	Product does not self ignite
Danger of explosion	Product does not present as an explosion hazard
Density	0.95 g/cm ³

10. STABILITY AND REACTIVITY

Incompability
May react with strong oxidizing agents

Conditions to avoid
Direct exposure to light and air.

Stability
Stable at recommended storage conditions

Hazardous polymerization



Will not occur.

11. TOXICOLOGICAL INFORMATION

No data available

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation.

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



CHEMOTECHNIQUE
DIAGNOSTICS

SAFETY DATA SHEET

V-001

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name VANILLIN 10.0% pet
Article Number V-001

Applications Diagnosis of contact allergy

Manufacturer Chemotechnique Diagnostics AB
Modemgatan 9
SE-235 39 Vellinge

Telephone +46 (0) 40 466 077 (Monday-Friday 8.00-16.00)
Fax +46 (0) 40 466 700

2. HAZARD IDENTIFICATION

Health hazards

The objective of applying a hapten on the patient's skin is the diagnosis of contact allergy
Localized dermal allergic reaction may occur at test site.

Signs and symptom of exposure

Dermal irritation.

Medical conditions aggravated by exposure

Dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classification according to (EC) No. 1272/2008 [EU-GHS/CLP]

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	90.0%	-
VANILLIN	121-33-5	10.0%	Eye irrit. 2; H319

Classification according to EU Directive 67/548/EEC and 1999/45/EC

Component	CAS-No.	Content	Classification
Petrolatum	8009-03-8	90.0%	-
VANILLIN	121-33-5	10.0%	Xi; R36

For the full text of the H-statements and R-phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Emergency and first aid procedures

Obtain medical attention



CHEMOTECHNIQUE DIAGNOSTICS

5. FIRE-FIGHTING MEASURES*

Suitable extinguish media

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents

Water with full jet.

Special protective equipment for fire-fighters

Wear self-contained respiratory protective device. Wear fully protective suit.

*Data is shown for petrolatum only

6. ACCIDENTAL RELEASES MEASURES

Steps to be taken if material is released or spilled

Contain and place in a closed container.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage

Store dark at 5-8°C. Avoid extended exposure to sunlight. FOR EXTERNAL USE ONLY

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Not required.

Ventilation

Local exhaust.

Protective gloves

Disposal gloves.

Eye protection

Not required with normal use.

Work/Hygienic practices

Wash hands after each use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White Semi-solid
Odour	Fragrance
Melting point*	50-55°C
Boiling point*	No data available
Flash point*	>100°C
Self ignition*	Product does not self ignite.
Danger of explosion*	Product does not present an explosion hazard.
Density*	No data available
Solubility in/Miscibility with Water*	Insoluble

*Data is shown for petrolatum only



CHEMOTECHNIQUE DIAGNOSTICS

10. STABILITY AND REACTIVITY

Incompability

May react with strong oxidizing agents.

Stability

Stable at recommended storage conditions.

Hazardous byproducts

Combustion may generate CO, CO₂ and other oxides.

Hazardous polymerization

Will not occur

11. TOXICOLOGICAL INFORMATION

No data available.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Waste disposal method

Comply with federal, state/provincial and local regulation

14. TRANSPORT INFORMATION

Not dangerous goods.

15. REGULATORY INFORMATION

The classification is according to the latest editions of the EU lists, and extended by company and literature data.

16. OTHER INFORMATION

Text of H-statements and R-phrases mentioned in Section 3

Pharmaceutical quality of tested hapten is confirmed by Chemotechnique Diagnostics according to validated analytical methods. Hapten passed test according to GMP standards.

Chemotechnique Diagnostics makes no representation as to the comprehensiveness or correctness of the information provided. It is intended only as a guide to a properly trained individual in the appropriate handling of the material.



Material Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section I. Product and Company Identification									
Product Name	Food Color, Yellow (Powder)								
Commercial Name	Not available.								
Synonym(s)	Not available								
Item Code	30-1277								
CAS#	Not available.								
RTECS	Not available								
In case of emergency contact: CHEMTREC (24hr) 1-800-424-9300									
HMIS Label									
Supplier	<table border="1"> <tr> <td>Health Hazard</td> <td>0 - Minimal</td> </tr> <tr> <td>Flammability</td> <td>0 - Minimal</td> </tr> <tr> <td>Reactivity</td> <td>0 - Minimal</td> </tr> <tr> <td>Personal Protection</td> <td>A</td> </tr> </table>	Health Hazard	0 - Minimal	Flammability	0 - Minimal	Reactivity	0 - Minimal	Personal Protection	A
Health Hazard	0 - Minimal								
Flammability	0 - Minimal								
Reactivity	0 - Minimal								
Personal Protection	A								
	PCCA 9901 South Wilcrest Houston, TX 77099 Phone 1-800-331-2498 Fax 1-800-874-5760								

Section II. Composition and Information on Ingredients				
Name	CAS#	% by Weight	TLV/PEL	LC50/LD50

Section III. Hazards Identification

Potential Acute Health Effects: May cause eye irritation by direct contact. May cause respiratory tract irritation.

Potential Chronic Health Effects: Not available

Section IV. First Aid Measures

Eye Contact: Flush eyes with water for at least 15 minutes. If irritation persists, consult your physician.

Skin Contact: Wash skin with soap and plenty of water. Remove contaminated clothes and wash before wearing again.

Inhalation: Remove individual to fresh air.

Ingestion: If large quantities are ingested, consult your physician.

Other:

Section V. Fire and Explosion Data

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: Not available.

Fire Hazards: Not available.

Explosion Hazards: Not available.

Fire Fighting Media and Instructions: Not available.

Extinguishing Media to Avoid: Not available.

Other:

Section VI. Accidental Release Measures

Spill Cleanup Instructions: Clean up with warm water and hypochlorite bleach.



Material Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section VII. Handling and Storage

Handling and Storage Info. Store in a tightly sealed container

Section VIII. Exposure Controls/Personal Protection

Personal Protection Splash goggles. Dust mask. Gloves

Other Protective Measures and Equipment Not available.

Exposure Limits Not available.

Section IX. Physical and Chemical Properties

Appearance Yellow powder

Odor Odorless.

Molecular Weight Not available.

Boiling Point Not available

Melting Point Not available.

Specific Gravity Not available.

Vapor Pressure Not available

Vapor Density Not available

Viscosity Not available.

Solubility Not available.

Other

Section X. Stability and Reactivity Data

Stability The product is stable.

Conditions to Avoid Not available

Materials to Avoid Avoid strong alkalines and oxidizing agents.

Other Corrosivity: Non-corrosive in presence of glass Hazardous polymerization will not occur

Section XI. Toxicological Information

Routes of Entry Not available

Toxicity Data

Section XII. Ecological Information

Information Products of Biodegradation: Possibly hazardous short-term degradation products are not likely. However, long-term degradation products may arise. Toxicity of the Products of Biodegradation. The products of degradation are more toxic.

Section XIII. Disposal Considerations

Waste Disposal Waste must be disposed of in accordance with federal, state and local environmental control regulations

Section XIV. Transport Information

DOT Classification Not a DOT controlled material (United States)



Material Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section XV. Other Regulatory Information

Regulations

Other

Section XVI. Other Information

Other