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ISO 9001: 2015

MATERIAL SAFETY DATA SHEET

1. Identification

1.1 GHS Product identifier

Methyl eugenol, 99%

Code M 2085

2. Hazard identification

2.1 Classification of the substance or mixture

Acute toxicity - Oral, Category 4

Germ cell mutagenicity, Category 2

Carcinogenicity, Category 2

2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Hazard statement(s)

Warning

H302 Harmful if swallowed

H341 Suspected of causing genetic defects

H351 Suspected of causing cancer

Precautionary statement(s)

Prevention

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301+P312 IF SWALLOWED: Call a POISON

CENTER/doctor/au2026if you feel unwell.

P330 Rinse mouth.

P308+P313 IF exposed or concerned: Get medical advice/attention.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container to ...

2.3 Other hazards which do not result in classification

none

3. Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
O-methyleugenol	O-methyleugenol	93-15-2	none	100%

4. First-aid measures

4.1 Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

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.

4.2 Most important symptoms/effects, acute and delayed

SYMPTOMS: Symptoms of exposure to this compound include nausea, vomiting, diarrhea, circulatory collapse, dizziness, rapid and shallow breathing, unconsciousness, convulsions, abdominal burning, dysuria, hematuria, tachycardia, bronchial irritation, anuria,

pulmonary edema, bronchial pneumonia and renal damage. ACUTE/CHRONIC HAZARDS: This compound may be irritating to the skin and eyes. When heated to decomposition it emits acrid smoke, irritating fumes and toxic fumes of carbon monoxide and carbon dioxide.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Maintain and open airway and assist ventilations if necessary. Treat seizures and coma if they occur There are no specific antidote for /these essential oils/. Administer activated charcoal, if available. Do not induce vomiting because of the risk of abrupt onset of seizures. Gastric emptying is not necessary for small ingestions if activated charcoal can be given promptly. /Camphor and Other Essential Oils/

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use alcohol foam

5.2 Specific hazards arising from the chemical

This chemical is combustible.

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 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.

6.3 Methods and materials for containment and cleaning up

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

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

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

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

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

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face 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 protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. 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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

no data available

9. Physical and chemical properties

Physical state

Light yellow liquid

Colour Crystals from hexane

Odour Mild-spicy, slightly herbal odor

Melting point/ freezing point 350\°C(lit.)

Boiling point or initial boiling point and boiling range 120\°C/3mmHg(lit.)

Flammability no data available

Lower and upper explosion limit / flammability limit no data available

Flash point 130\°C(lit.)

Auto-ignition temperature no data available

Decomposition temperature no data available

pH	no data available
Kinematic viscosity	no data available
Solubility	In water:insoluble
Partition coefficient n-octanol/water (log value)	log Kow = 3.03 (est)
Vapour pressure	0.02 mm Hg at 20\u00b0C ; 1 mm Hg at 85\u00b0C
Density and/or relative density	1.035
Relative vapour density	greater than 1.0 (Relative to Air)
Particle characteristics	no data available

10.Stability and reactivity

10.1Reactivity

no data available

10.2Chemical stability

Stable to air, heat and light.

10.3Possibility of hazardous reactions

METHYLEUGENOL is incompatible with strong oxidizers . May react exothermically with reducing agents to release hydrogen gas.

10.4Conditions to avoid

no data available

10.5Incompatible materials

no data available

10.6Hazardous decomposition products

When heated to decomposition it emits acrid smoke and irritating fumes.

11.Toxicological information

Acute toxicity

Oral: LD50 Rat oral 1179 mg/kg

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

Methyleugenol: reasonably anticipated to be a human carcinogen.

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

12.Ecological information

12.1Toxicity

Toxicity to fish: LC50 Lepomis macrochirus (Bluegill) 8.5 mg/L/24 hr; static /formulated product

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

12.2Persistence and degradability

AEROBIC: Methyleugenol, present at 100 mg/L, reached 86-91% of its theoretical BOD in 4 weeks using an activated sludge inoculum at 30 mg/L(1).

12.3Bioaccumulative potential

An estimated BCF value of 18 was calculated for methyleugenol(SRC), using a water solubility of 500 mg/L(1) and a recommended regression-derived equation(2). According to a classification scheme(3), this BCF value suggests that bioconcentration in aquatic organisms is low(SRC).

12.4Mobility in soil

The Koc of methyleugenol is estimated as 140(SRC), using a water solubility of 500 mg/L(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that methyleugenol is expected to have high mobility in soil. However, the compound was immobile in silty loam, Lufkin fine sandy loam, Houston clay, and Brazos river bottom sand using soil thin layer chromatography(4).

12.5Other adverse effects

no data available



13. Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. Transport information

14.1 UN Number

ADR/RID: UN3265 IMDG: UN3265 IATA: UN3265

14.2 UN Proper Shipping Name

ADR/RID: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

IMDG: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

IATA: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

14.3 Transport hazard class(es)

ADR/RID: 8 IMDG: 8 IATA: 8

14.4 Packing group, if applicable

ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards

ADR/RID: no IMDG: no IATA: no

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

15. Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
O-methyleugenol	O-methyleugenol	93-15-2	none
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Chemical Inventory			Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.

Section 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.