



MATERIAL SAFETY DATA SHEET SDS/MSDS

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Eugenol

CAS-No. : 97-53-0

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Bio-Chem Chemicals
5455 Nicholson Road, Science Market
Ambala Cantt, 133001 - Haryana
+91 82952 41953
info@biofinechemical.com - www.biofinechemical.com

1.4 Emergency telephone number

Emergency Phone # +91 99921 51495 (10.00am - 06.30pm) (Office Hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Eye irritation (Category 2), H319

Skin sensitisation (Category 1), H317

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

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word	Warning
Hazard statement(s)	
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
Precautionary statement(s)	
P280	Wear protective gloves.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard
Statements

2.3 Other hazards - none

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : 2-Methoxy-4-(2-propenyl)phenol
4-Allyl-2-methoxyphenol
4-Allylguaiacol

Formula : $C_{10}H_{12}O_2$

Molecular weight : 164.21 g/mol

CAS-No. : 97-53-0

EC-No. : 202-589-1

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
Eugenol			
CAS-No.	97-53-0	Eye Irrit. 2; Skin Sens. 1;	<= 100 %
EC-No.	202-589-1	H319, H317	

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

SECTION 4: First aid measures

4.1 Description of 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 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

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Carbon oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

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

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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

Store under inert gas. Air sensitive.

Storage class (TRGS 510): Combustible liquids not in Storage Class 3

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

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

Personal protective equipment

Eye/face 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 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.

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.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee 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).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

a) Appearance	Form: clear, liquid Colour: light yellow
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/range: -12 - -10 °C - lit.
f) Initial boiling point and boiling range	254 °C - lit.
g) Flash point	112 °C - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	< 0.1 mmHg at 25 °C
l) Vapour density	No data available
m) Relative density	1.067 g/cm ³ at 25 °C
n) Water solubility	No data available
o) Partition coefficient: n-octanol/water	log Pow: 2.7
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Air

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - > 2,000 mg/kg(Eugenol)
(OECD Test Guideline 423)

Skin corrosion/irritation

Skin - Rabbit(Eugenol)
Result: No skin irritation
(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit(Eugenol)
Result: Irritating to eyes.
(OECD Test Guideline 405)

Respiratory or skin sensitisation

in vivo assay - Mouse(Eugenol)
May cause allergic skin reaction.
(OECD Test Guideline 429)

Germ cell mutagenicity

Rat(Eugenol)
Liver
DNA damage
Mouse(Eugenol)
lymphocyte
Mutation in mammalian somatic cells.
Hamster(Eugenol)
Embryo
Unscheduled DNA synthesis
Hamster(Eugenol)
Embryo
Morphological transformation.
Hamster(Eugenol)
Embryo

Sister chromatid exchange
(Eugenol) Mouse
Micronucleus test

Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Eugenol)

Reproductive toxicity

No data available(Eugenol)

Specific target organ toxicity - single exposure

No data available(Eugenol)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available(Eugenol)

Additional Information

RTECS: SJ4375000

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

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish LC50 - Danio rerio (zebra fish) - 13 mg/l - 96 h(Eugenol)
(OECD Test Guideline 203)

Toxicity to daphnia and EC50 - Daphnia (water flea) - 1.13 mg/l - 48 h(Eugenol)
other aquatic
invertebrates

12.2 Persistence and degradability

Biodegradability Result: - Readily biodegradable
(Directive 67/548/EEC Annex V, C.4.E.)

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available(Eugenol)

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

Toxic to aquatic life.

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

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

Contaminated packaging

Dispose of as unused product.

14.1 UN number

ADR/RID: - IMDG: - IATA: -

ADR/RID: -

IMDG: -

IATA: -

ADR/RID: Not dangerous goods

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

ADR/RID: - IMDG: - IATA: -

ADR/RID: -

IMDG: -

IATA: -

ADR/RID: - IMDG: - IATA: -

ADR/RID: -

IMDG: -

IATA: -

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

No data available

No data available

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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For this product a chemical safety assessment was not carried out

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Full text of H-Statements referred to under sections 2 and 3.

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