

For Chemical Emergencies During Transportation:
USA and Canada: Call CHEMTREC 24 Hours at 1-800-424-9300
International: Call CHEMTREC 24 Hours at 1-703-527-3887
Account Number: CCN709805

1. PRODUCT AND COMPANY INFORMATION

Product Name: EUGENOL
Product Code: 22158
CAS #: 97-53-0

Company Name: The Lermond Company, LLC
13 Raritan Road
Oakland, NJ 07436
Phone: 201-896-3300

2. HAZARD(S) IDENTIFICATION

Physical hazards	Not classified.	
Health Hazards	Acute toxicity, oral Skin corrosion/irritation Serious eye damage/eye irritation Sensitization, skin	Category 4 Category 2 Category 2A Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard Hazardous to the aquatic environment, long-term hazard	Category 2 Category 2



Label elements

Signal word	H302 H315 H315+H320 H317 H319 H401 H411	Harmful if swallowed. Causes skin irritation. Causes skin and eye irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Hazard statement	P264 P270 P272 P273 P280	Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear eye protection/face protection.

	P280	Wear protective gloves.
Precautionary statement		
Prevention	P264	Wash thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P272	Contaminated work clothing should not be allowed out of the workplace.
	P273	Avoid release to the environment.
	P280	Wear eye protection/face protection.
	P280	Wear protective gloves.
Response	P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
	P330	Rinse mouth.
	P302 + P352	IF ON SKIN: Wash with plenty of water.
	P305+ P351	IF IN EYES: Rinse cautiously with water for several minutes.
	+P338	Remove contact lenses, if present and easy to do. Continue rinsing.
	P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
	P337 + P313	If eye irritation persists: Get medical advice/attention.
	P362 + P364	Take off contaminated clothing and wash it before reuse.
	P391	Collect spillage.
Storage	P420	Store away from incompatible materials.
Disposal	P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.	

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: EUGENOL 100% CAS Number: 97-53-0

4. FIRST-AID MEASURES

Inhalation: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.

Skin Contact: Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash skin thoroughly with soap and water for several minutes.

Eye Contact: Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists. Promptly wash eyes with plenty of water while lifting the eye lids.

Ingestion: Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

Most important symptoms/effects, acute and delayed: Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Indication of immediate

Medical attention and Special treatment needed:

Not available.

General information:

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. FIRE-FIGHTING MEASURES

Flash Point:

>100°C (>212°F)

Suitable

Extinguishing Media:

Water spray, fog, CO₂, dry chemical, or alcohol resistant foam.

Unsuitable Extinguishing Media:

Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the Chemical:

Fire may produce irritating, corrosive and/or toxic gases.

Special protective Equipment and precautions for firefighters:

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Firefighting equipment/ Instructions:

In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control.

Specific methods:

Use water spray to cool unopened containers.

General fire hazards:

Static charges generated by emptying package in or near flammable vapor may cause flash fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up:

Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers.

Small Spills: Wipe up with absorbent material (e.g., cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions:

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. HANDLING AND STORAGE

Safe Handling:

Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling.

Safe Storage:

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits:

This substance has no PEL, TLV, or other recommended exposure limit.

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls:

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide easy access to water supply and eye wash facilities.

Individual protection measures, such as personal protective equipment:**Eye/face protection:**

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection:**Hand protection:**

Wear appropriate chemical resistant gloves.

Other:

Wear appropriate chemical resistant clothing. Use of an impervious apron recommended.

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards:

Wear appropriate thermal protective clothing, when necessary.

General hygiene**Considerations:**

Contaminated work clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Colorless to Pale Yellow Liquid

Vapor density @ 20°C:

5.7

Relative Density @ 25°C:

Not available.

Melting point:

15.44 - 15.62 °F (-9.2 - -9.1 °C)

Flash point:

>100°C (>212°F)

Boiling point:

485.6 - 487.4 °F (252 - 253 °C)

10. STABILITY AND REACTIVITY

Reactivity:

The product is stable and non-reactive under normal conditions of use, storage and transport.

Stability: Material is stable under normal conditions.

Possibility of hazardous Reactions: No dangerous reaction known under conditions of normal use.

Conditions to avoid: Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials: Alkaline metals.

Hazardous decomposition products: No hazardous decomposition products if stored and handled as indicated.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation: Knowledge about health hazard is incomplete.

Skin contact: Causes skin irritation. May cause an allergic skin reaction.

Eye contact: Causes serious eye irritation. Causes mild eye irritation.

Ingestion: Harmful if swallowed.

Symptoms related to the physical, chemical, and toxicological Characteristics: Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Harmful if swallowed.

Components	Species	Test Results
Eugenol		
Acute Dermal LCLo	Rat	5000 mg/kg subcutaneous
Inhalation LC50	Rat	2580 mg/m ³ , 4 hours ARTODN 62,381,1988

Skin Corrosion/irritation: Causes skin irritation.
rabbit - Severe skin irritation - 24 h - Draize Test

Serious eye damage/eye Irritation: Causes serious eye irritation.

Respiratory or skin sensitization:

Respiratory sensitization: Due to partial or complete lack of data the classification is not possible.

Skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity: : Genotoxicity in vitro - rat - Liver - DNA damage
 Genotoxicity in vitro - mouse - lymphocyte - Mutation in mammalian somatic cells.
 Genotoxicity in vitro - Hamster - Embryo - Unscheduled DNA synthesis
 Genotoxicity in vitro - Hamster - Embryo - Morphological transformation.
 Genotoxicity in vitro - Hamster - Embryo - Sister chromatid exchange
 Genotoxicity in vivo - mouse - Oral - Micronucleus test Due to partial or complete lack of

data the classification is not possible.

Carcinogenicity: Due to partial or complete lack of data the classification is not possible.
Carcinogenicity - mouse - Oral -Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.
Liver: Tumors.

OSHA specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity: Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity- single exposure: Due to partial or complete lack of data the classification is not possible.
Inhalation - May cause respiratory irritation.

Specific target organ toxicity- repeated exposure: Due to partial or complete lack of data the classification is not possible.

Aspiration hazard: May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
Eugenol		
Other	LD50 Bird	> 316 mg/kg Schafer, 1983
Aquatic		
Crustacea	EC50 Daphnia magna LD50 Invertebrates (Invertebrates)	1.13 mg/l, 48 hours 0.012 mg/kg Lee, 1997
Fish	LC50 Danio rerio Oncorhynchus mykiss	13 mg/l, 96 hours 60.8 mg/l, 96 hours

Persistence and degradability: No data is available on the degradability of this substance.

Bioaccumulative Potential: 2.27

Mobility in soil: No data available.

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS

Disposal instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds,

waterways, or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations: Dispose in accordance with all applicable regulations.

Hazardous waste code: The waste code should be assigned in discussion between the user, the producer, and the waste disposal company.

**Waste from residues/
unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

Ground Shipping (DOT): NON-BULK
Not regulated as dangerous goods.

Ground Shipping (DOT): BULK
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EUGENOL)
Hazard Class: 9
UN Number: 3082
Packing Group: III

Air shipping (IATA):
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EUGENOL)
Hazard Class: 9
UN Number: 3082
Packing Group: III

Ocean Shipping (IMDG):
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EUGENOL)
Hazard Class: 9
UN Number: 3082
Packing Group: III

15. REGULATORY INFORMATION

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories Not listed.

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

16. OTHER INFORMATION

Disclaimer: This information is provided for documentation purposes only.

The complete range of conditions or methods of use are beyond our control therefore we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate however, all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

This safety sheet cannot cover all possible situations that the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or custom