

TERRAZOLE® L

EPA Registration Number: 400-422-59807

1. PRODUCT AND COMPANY IDENTIFICATION

Product name TERRAZOLE® L
EPA Registration No. 400-422-59807
Recommended use of the chemical and restrictions on use
Recommended use Fungicide
Restrictions on use Agriculture, For professional users only.
Company information OHP, Inc.
 PO Box 51230
 Mainland, PA 19451
 (800) 659-6745
Emergency telephone number
TRANSPORTATION EMERGENCY (24 hours a day) call Chemtrec: 1-800-424-9300
MEDICAL EMERGENCY (24 hours a day) and Product Information call 1-800-356-4647
SDS Information or Request ohp.com

2. HAZARDS IDENTIFICATION

Emergency Overview
DANGER!
Appearance liquid
Colour amber
Odour solvent-like
Hazard Summary Combustible liquid.
 Harmful if swallowed.
 May be fatal if swallowed and enters airways.
 Causes serious eye damage.
 Suspected of causing cancer.
 Very toxic to aquatic life with long lasting effects.

OSHA Regulatory status:
 This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

GHS Classification
Flammable liquids Category 4
Acute toxicity (Oral) Category 4
Serious eye damage Category 1
Carcinogenicity Category 2
Aspiration hazard Category 1
Acute aquatic toxicity Category 1
Chronic aquatic toxicity Category 1

GHS Label element

Hazard pictograms



Signal word Danger

Hazard statements:

- H227 Combustible liquid.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H318 Causes serious eye damage.
- H351 Suspected of causing cancer.
- H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- 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 protective gloves/ eye protection/ face protection.
- P281 Use personal protective equipment as required.

Response:

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
- 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.
- P308 + P313 IF exposed or concerned: Get medical advice/ attention.
- P331 Do NOT induce vomiting.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- P391 Collect spillage.

Storage:

- P403 + P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.

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Disposal:

P501 Dispose of contents/container to an approved waste disposal plant.

Potential Health Effects

Inhalation : May be fatal if swallowed and enters airways.

Skin : May irritate skin.

Eyes : Causes serious eye damage.

Ingestion : Aspiration hazard if swallowed - can enter lungs and cause damage. Harmful or fatal if swallowed.

Chronic Exposure : Cancer

Aggravated Medical

Condition : None known.

Symptoms of

Overexposure : corrosive effects
irritant effects
Symptoms may be delayed.

Carcinogenicity:

IARC : Group 2B: Possibly carcinogenic to humans

naphthalene 91-20-3

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.

NTP : Reasonably anticipated to be a human carcinogen

naphthalene 91-20-3

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
Solvent naphtha (petroleum), heavy arom.	64742-94-5	>= 30 - < 50
5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole	2593-15-9	44.3
naphthalene	91-20-3	>= 1 - < 5

4. FIRST AID MEASURES

If inhaled : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration.

Call a physician or poison control center immediately. If breathing is difficult, give oxygen. Keep respiratory tract clear.

In case of skin contact : Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If symptoms persist, call a physician. Call a physician or poison control center immediately.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.

If swallowed : Call a physician or poison control center immediately. Rinse mouth with water. If victim is fully conscious, give a cupful of water. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not give milk or alcoholic beverages. Obtain medical attention.

Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

5. FIREFIGHTING MEASURES

Suitable extinguishing

media : Extinguishing media - large fires
Alcohol-resistant foam (on small fires)
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing

media : Water spray jet

Specific hazards during

fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses. Burning produces noxious and toxic fumes.

Further information

Do not discharge extinguishing waters into streams, rivers and lakes. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment

for firefighters : Wear full protective clothing and self-contained breathing apparatus.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures . . . : Use personal protective equipment.
 Ensure adequate ventilation.
 Evacuate personnel to safe areas.

Environmental precautions : Do not flush into surface water or sanitary sewer system.
 Prevent further leakage or spillage if safe to do so.
 If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
 Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling . . . : Avoid exceeding the given occupational exposure limits (see section 8).
 Avoid contact with skin and eyes.
 For personal protection see section 8.
 Smoking, eating and drinking should be prohibited in the application area.
 Provide sufficient air exchange and/or exhaust in work rooms.
 Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Prevent unauthorized access.
 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

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Solvent naphtha (petroleum), heavy arom.	64742-94-5	TWA	500 ppm 2,000 mg/m3	OSHA Z-1

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
		TWA	400 ppm 1,600 mg/m3	OSHA P0
naphthalene	91-20-3	TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH
		TWA	10 ppm 50 mg/m3	OSHA Z-1
		TWA	10 ppm 50 mg/m3	OSHA P0
		STEL	15 ppm 75 mg/m3	OSHA P0
		TWA	10 ppm 50 mg/m3	NIOSH REL
		ST	15 ppm 75 mg/m3	NIOSH REL

Personal protective equipment

Respiratory protection . . . : In the case of vapour formation use a respirator with an approved filter.

Hand protection

Remarks : Solvent-resistant gloves
 The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Before removing gloves clean them with soap and water.

Eye protection : Eye wash bottle with pure water
 Tightly fitting safety goggles

Skin and body protection . . : impervious clothing
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : Avoid contact with skin, eyes and clothing.
 When using do not eat or drink.
 When using do not smoke.
 Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : amber

Odour : solvent-like

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Odour Threshold: No data available
pH: 4 - 6
Melting point/range: Not applicable
Boiling point/boiling range: No data available
Flash point: 65.6 °C
Evaporation rate: No data available
Upper explosion limit: No data available
Lower explosion limit: No data available
Vapour pressure: No data available
Relative vapour density: No data available
Relative density: 1.104
Density: 1.11 g/cm³
Solubility(ies)
Water solubility: insoluble
Solubility in other solvents: soluble
Solvent: Organic solvents
Partition coefficient:
n-octanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity
Viscosity, dynamic: No data available
Viscosity, kinematic: No data available
Self-Accelerating decomposition temperature (SADT): Method: No information available.
Oxidising potential: No information available.

10. STABILITY AND REACTIVITY

Reactivity: Stable under recommended storage conditions.
Chemical stability: No decomposition if stored and applied as directed.
Possibility of hazardous reactions: No decomposition if used as directed.
Conditions to avoid: No data available
Incompatible materials: None known.
Hazardous decomposition products: Nitrogen oxides (NO_x)
Sulphur oxides
Other hazardous decomposition products may be formed.

11. TOXICOLOGICAL INFORMATION

Information on likely

routes of exposure: Eye contact
Ingestion

Acute toxicity

Product:

Acute oral toxicity: LD50 (Rat, male): 1.6 g/kg
LD50 (Rat, female):
1,414 mg/kg

Acute inhalation

toxicity: LC50 (Rat): > 3.8 mg/l
Exposure time: 4 h
Test atmosphere:
dust/mist

Assessment: The substance or mixture has no acute inhalation toxicity

Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity: LD50 (Rat): 3,241 mg/kg

Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:

Acute oral toxicity: LD50 (Rat): > 945 mg/kg
Method: OECD Test
Guideline 401

Acute inhalation

toxicity: LC50 (Rat): > 5.7 mg/l
Exposure time: 4 h
Test atmosphere: dust/
mist
Method: OECD Test
Guideline 403

Acute dermal toxicity: LD50 (Rabbit):
> 5,000 mg/kg
Method: OECD Test
Guideline 402

Skin corrosion/irritation

Product:

Species: Rabbit
Result: Moderate skin irritation

Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

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Serious eye damage/eye irritation

Product:

Species: Rabbit
Result: Irreversible effects on the eye

Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

Respiratory or skin sensitisation

Product:

Species: Guinea pig
Result: Did not cause sensitisation on laboratory animals.

Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:
Species: Guinea pig
Assessment: The product is a skin sensitiser, sub-category 1A.
Method: OECD Test Guideline 406
Result: May cause sensitisation by skin contact.

Germ cell mutagenicity

Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:
Germ cell mutagenicity
- Assessment: Based on available data, the classification criteria are not met.

Carcinogenicity

Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:
Carcinogenicity
- Assessment: Suspected of causing cancer.

Reproductive toxicity

Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:
Reproductive toxicity
- Assessment: Based on available data, the classification criteria are not met.

STOT - single exposure

Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:
Assessment: Based on available data, the classification criteria are not met.

Repeated dose toxicity

Product:

Species: Rat 2.5 mg/kg
Exposure time: days/week

Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:
Species: Rat
NOAEL: 2.7 mg/kg
Application Route: Oral
Exposure time: 91 d
Target Organs: Liver
Species: Rat
NOAEL: 20 mg/kg
Application Route: Dermal
Exposure time: 28 d
Species: Rat
NOAEL: 0.015 mg/l
LOAEL: 0.015 mg/l
Application Route: inhalation (dust/mist/fume)
Exposure time: 28 d

Aspiration toxicity

Product:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Concentrations substantially above the TLV value may cause narcotic effects.
Solvents may degrease the skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish: Remarks: Information refers to the main component.
Toxicity to daphnia and other aquatic invertebrates ...: Remarks: Information refers to the main component.
Toxicity to algae: Remarks: Information refers to the main component.

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Further information: The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 3.808 %

Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): 2.4 mg/l
Exposure time: 96 h
Test Type: flow-through test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 3.1 mg/l
Exposure time: 48 h
Test Type: flow-through test
Method: OECD Test Guideline 202

Toxicity to algae: EC50 (Selenastrum capricornutum (green algae)): 0.8 mg/l
Exposure time: 48 h

Toxicity to fish (Chronic toxicity): NOEC: 0.12 mg/l
Exposure time: 28 d
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC: 0.37 mg/l
Exposure time: 21 d
Test Type: flow-through test

M-Factor (Chronic aquatic toxicity): 1

Persistence and degradability

Product:

Biodegradability: Remarks: No data available

Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:

Biodegradability: Result: Not readily biodegradable.

Stability in water: Degradation half life (DT50): 92 d pH: 5
Hydrolysis: at 25 °C

Degradation half life (DT50): 98 d pH: 7
Hydrolysis: at 25 °C

Degradation half life (DT50): 88 d pH: 9
Hydrolysis: at 25 °C

Bioaccumulative potential

Product:

Bioaccumulation: Remarks: No data available

Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:

Bioaccumulation: Bioconcentration factor (BCF): 165

Partition coefficient: n-octanol/water: Pow: 289

naphthalene:

Partition coefficient: n-octanol/water: log Pow: 3.4

Mobility in soil

Product:

Mobility: Remarks: No data available

Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:

Distribution among environmental compartments: Remarks: Moderately mobile in soils

Other adverse effects

Product:

Results of PBT and vPvB assessment: No data available

Additional ecological

information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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Components:

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole:

Results of PBT and vPvB assessment. : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

Proper shipping name . . . : COMBUSTIBLE LIQUID, N.O.S. (Etridiazole, naphthalene)
Class : CBL
Packing group : III
ERG Code : 128
Marine pollutant : yes (Etridiazole, naphthalene)

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of wastes in an approved waste disposal facility. The product should not be allowed to enter drains, water courses or the soil. In accordance with local and national regulations. Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging . : Dispose of as unused product. Do not re-use empty containers.

14. TRANSPORT INFORMATION

International Regulation

IATA-DGR

UN/ID No. : UN 3082
Proper shipping name . . . : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Etridiazole, naphthalene)

Class : 9
Packing group : III
Labels : Miscellaneous

IMDG-Code

UN number : UN 3082
Proper shipping name . . . : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Etridiazole, naphthalene)

Class : 9
Packing group : III
Labels : 9

EmS Code : F-A, S-F

Marine pollutant : yes

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

Not applicable for product as supplied.

National Regulations

49 CFR

UN/ID/NA number : NA 1993

15. REGULATORY INFORMATION

OSHA Hazards : Combustible Liquid, Harmful by ingestion., Aspiration hazard, Carcinogen, Skin sensitiser

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
naphthalene	91-20-3	100	2027

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
ethylene oxide	75-21-8	10	*

*: Calculated RQ exceeds reasonably attainable upper limit.

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

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

naphthalene 91-20-3 4.9332 %

California Prop 65:

WARNING! This product contains a chemical known to the State of California to cause cancer.

5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole 2593-15-9
naphthalene 91-20-3
ethylene oxide 75-21-8

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

ethylene oxide 75-21-8

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FIFRA Hazard Information:

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use.

The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION

Corrosive. Causes irreversible eye damage. Causes skin irritation. Harmful if swallowed. Harmful if absorbed through the skin. Do not get in eyes or on clothing. Avoid contact with skin. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

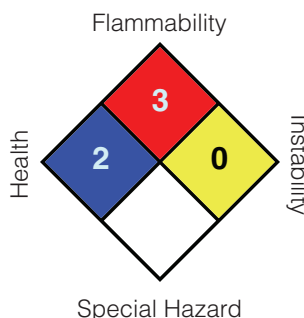
Etridiazole may contaminate surface water through spray drift. Under some conditions, etridiazole may have a high potential for runoff into surface water for several weeks postapplication. These conditions include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with infield canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain surface water.

Combustible. Do not use or store the product near heat or open flame.

16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	2*
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = Not significant, 1 = Slight,
2 = Moderate, 3 = High,
4 = Extreme, * = Chronic

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.

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