TERT-DODECYL MERCAPTAN  
CAS-No 25103-58-6  

MATERIAL SAFETY DATA SHEET  
SDS/MSDS

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

1.1 Product identifiers  
Product name: tert-Dodecyl Mercaptan  
CAS-No.: 25103-58-6

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: Central Drug House (P) Ltd  
7/28 Vardaan House  
New Delhi -110002  
INDIA  
Telephone: +91 11 49404040  
Email: care@cdhfinechemical.com

1.4 Emergency telephone number  
Emergency Phone #: +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture  
Classification according to Regulation (EC) No 1272/2008  
Skin irritation (Category 2), H315  
Eye irritation (Category 2), H319  
Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410

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):  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):  
P273 Avoid release to the environment.
P305 + P351 + P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501  Dispose of contents/container to an approved waste disposal plant.

Supplemental Hazard Statements

2.3 Other hazards
Stench.

SECTION 3: Composition/information on ingredients

3.1 Substances
Synonyms  : tert-Dodecanethiol

Formula  : C_{12}H_{25}SH
Molecular weight  : 202.40 g/mol
CAS-No.  : 25103-58-6
EC-No.  : 246-619-1

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
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<tbody>
<tr>
<td>tert-Dodecanethiol</td>
<td>Skin Irrit. 2; Eye Irrit. 2;</td>
<td>&lt;= 100 %</td>
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<tr>
<td>CAS-No.</td>
<td>Aquatic Acute 1; Aquatic</td>
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<tr>
<td></td>
<td>Chronic 1; H315, H319, H400,</td>
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<td></td>
<td>H410</td>
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<td>M-Factor - Aquatic Acute: 10</td>
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<tr>
<td>EC-No.</td>
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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, Sulphur 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. Evacuate personnel to safe areas. 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. Normal measures for preventive fire protection. 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. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Combustible liquids

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
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
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
Impervious clothing, 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 brown

b) Odour
Stench.

c) Odour Threshold
No data available

d) pH
No data available

e) Melting point/freezing point
Melting point/range: < -30 °C

f) Initial boiling point and boiling range
227 - 248 °C - lit.

g) Flash point
97 °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
0,6 mmHg at 50 °C
0,02 mmHg at 20 °C

l) Vapour density
6,99 - (Air = 1,0)

m) Relative density
0,86 g/cm3 at 20 °C

n) Water solubility
insoluble

o) Partition coefficient:
log Pow: 6,1

p) Auto-ignition temperature
No data available

q) Decomposition temperature
350 °C

r) Viscosity
No data available

s) Explosive properties
No data available

t) Oxidizing properties
No data available

9.2 Other safety information
Relative vapour density 6,99 - (Air = 1,0)
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
No data available

10.5 Incompatible materials
Strong oxidizing agents

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur 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 - 4,400 - 12,000 mg/kg(tert-Dodecanethiol)
LD50 Dermal - Rabbit - 12,600 mg/kg(tert-Dodecanethiol)

Skin corrosion/irritation
Skin - Rabbit(tert-Dodecanethiol)
Result: Skin irritation - 24 h

Serious eye damage/eye irritation
Eyes - Rabbit(tert-Dodecanethiol)
Result: Moderate eye irritation

Respiratory or skin sensitisation
No data available(tert-Dodecanethiol)

Germ cell mutagenicity
No data available(tert-Dodecanethiol)

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.

Reproductive toxicity
No data available(tert-Dodecanethiol)

Specific target organ toxicity - single exposure
No data available(tert-Dodecanethiol)

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available(tert-Dodecanethiol)

Additional Information
RTECS: JR3150000
Nausea, Headache, Vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (tert-Dodecanethiol)

SECTION 12: Ecological information

12.1 Toxicity
Toxicity to fish  LC50 - Salmo salar (Atlantic salmon) - 0.9 mg/l (tert-Dodecanethiol)
Toxicity to daphnia and other aquatic invertebrates  EC50 - Daphnia (water flea) - 0.5 mg/l - 48 h (tert-Dodecanethiol)
Toxicity to algae  EC50 - Desmodesmus subspicatus (green algae) - 81 - 100 mg/l - 72 h (tert-Dodecanethiol)

12.2 Persistence and degradability
Biodegradability  Result: 10.40 % - Not readily biodegradable.

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available (tert-Dodecanethiol)

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
Very toxic to aquatic life.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
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.

SECTION 14: Transport information

14.1 UN number
ADR/RID: 3082  IMDG: 3082  IATA: 3334

14.2 UN proper shipping name
ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (tert-Dodecanethiol)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (tert-Dodecanethiol)
IATA: AVIATION REGULATED LIQUID, N.O.S. (tert-Dodecanethiol)

14.3 Transport hazard class(es)
ADR/RID: 9  IMDG: 9  IATA: 9

14.4 Packaging group
ADR/RID: III  IMDG: III  IATA: III

14.5 Environmental hazards
ADR/RID: yes  IMDG Marine pollutant: no  IATA: no

14.6 Special precautions for user
Further information
EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.
SECTION 15: Regulatory information

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.

15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other information

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

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Further information
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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.