

CAS No: 56-23-5 MSDS

MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. Product identifier

Product form : Mixture
:
CAS No : 56-23-5
Product code : 00070
Formula : CCl₄
Synonyms : Tetrachloromethane

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT.LTD.
107 Wode House Road, Jehangir Villa, Colaba
400005 Mumbai - INDIA
T +91 22 6663 6663 - F +91 22 6663 6699
info@lobachemie.com - www.lobachemie.com

1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

Carc.Cat.3; R40
T; R23/24/25
T; R48/23
N; R59
R52/53

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements

Labelling according to Directive 67/548/EEC or 1999/45/EC

Hazard symbols :



T - Toxic



N -
Dangerous
for the
environment

- R-phrases : R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed
R40 - Limited evidence of a carcinogenic effect
R48/23 - Toxic: danger of serious damage to health by prolonged exposure through inhalation
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R59 - Dangerous for the ozone layer
- S-phrases : S23 - Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer)
S36/37 - Wear suitable protective clothing and gloves
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S59 - Refer to manufacturer/supplier for information on recovery/recycling
S61 - Avoid release to the environment. Refer to special instructions/safety data sheets

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH annex II

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.
- First-aid measures after skin contact : Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth out with water. If you feel unwell, seek medical advice.

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4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes damage to organs through prolonged or repeated exposure.
- Symptoms/injuries after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.
- Symptoms/injuries after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).
- Unsuitable extinguishing media : Do not use extinguishing media containing water.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.
- Emergency procedures : Stop release.

6.2. Environmental precautions

Harmful to aquatic life with long lasting effects.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Do not breathe dust/fume/gas/mist/vapours/spray.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash ... thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in original container. Keep container tightly closed. Store in a dry place.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

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8.2. Exposure controls

| | |
|--------------------------|--------------------------------------|
| Hand protection | : protective gloves |
| Eye protection | : Chemical goggles or safety glasses |
| Skin and body protection | : Wear suitable protective clothing |
| Respiratory protection | : Wear respiratory protection |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|--------------------------|
| Physical state | : Liquid |
| Molecular mass | : 153.82 g/mol |
| Colour | : Clear Colorless. |
| Odour | : chloroform-like. |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : 12.8 |
| Melting point | : -23 °C |
| Freezing point | : No data available |
| Boiling point | : 76 - 77 |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : 100 °C |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : 121.3 hPa at 20°C |
| Relative vapour density at 20 °C | : 5.31 |
| Relative density | : No data available |
| Density | : 1.59 g/cm ³ |
| Solubility | : Water: Insoluble |
| Log Pow | : 2.83 |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : 0.97 Pa.s 20 °C |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |

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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Direct sunlight. Overheating. Open flame. Heat. Sparks.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|---|---|
| Acute toxicity | : Toxic by inhalation, in contact with skin and if swallowed. |
| Irritation | : Not classified |
| Corrosivity | : Not classified |
| Sensitisation | : Not classified |
| Repeated dose toxicity | : Toxic: danger of serious damage to health by prolonged exposure through inhalation. |
| Carcinogenicity | : Limited evidence of a carcinogenic effect. |
| Mutagenicity | : Not classified |
| Toxicity for reproduction | : Not classified |
| Potential adverse human health effects and symptoms | : Toxic if swallowed. Toxic in contact with skin. |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|-----------------|--|
| Ecology - air | : Dangerous for the ozone layer. |
| Ecology - water | : Harmful to aquatic life with long lasting effects. |

12.2. Persistence and degradability

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| | |
|-------------------------------|---|
| Persistence and degradability | May cause long-term adverse effects in the environment. |
|-------------------------------|---|

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12.3. Bioaccumulative potential

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| | |
|---------|------|
| Log Pow | 2.83 |
|---------|------|

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to ...

Ecology - waste materials : Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

| | |
|---------------|--------|
| UN-No. (ADR) | : 1846 |
| UN-No. (IMDG) | : 1846 |
| UN-No.(IATA) | : 1846 |
| UN-No.(ADN) | : 1846 |
| UN-No. (RID) | : 1846 |

14.2. UN proper shipping name

| | |
|---------------------------------------|---|
| Proper Shipping Name (ADR) | : CARBON TETRACHLORIDE |
| Proper Shipping Name (IMDG) | : CARBON TETRACHLORIDE |
| Proper Shipping Name (IATA) | : CARBON TETRACHLORIDE |
| Proper Shipping Name (ADN) | : CARBON TETRACHLORIDE |
| Proper Shipping Name (RID) | : CARBON TETRACHLORIDE |
| Transport document description (ADR) | : UN 1846 CARBON TETRACHLORIDE, 6.1, II, (D/E) |
| Transport document description (IMDG) | : UN 1846 CARBON TETRACHLORIDE, 6.1, II, MARINE POLLUTANT |
| Transport document description (IATA) | : UN 1846 CARBON TETRACHLORIDE, 6.1, II |
| Transport document description (ADN) | : UN 1846 CARBON TETRACHLORIDE, 6.1, II |
| Transport document description (RID) | : UN 1846 CARBON TETRACHLORIDE, 6.1, II |

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 6.1

Danger labels (ADR) : 6.1



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IMDG

Transport hazard class(es) (IMDG) : 6.1

Danger labels (IMDG) : 6.1



IATA

Transport hazard class(es) (IATA) : 6.1

Hazard labels (IATA) : 6.1



ADN

Transport hazard class(es) (ADN) : 6.1

Danger labels (ADN) : 6.1



RID

Transport hazard class(es) (RID) : 6.1

Danger labels (RID) : 6.1



14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : Yes (IMDG only)

Other information : No supplementary information available

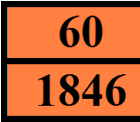

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : T1

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| | |
|---|--|
| Limited quantities (ADR) | : 100ml |
| Excepted quantities (ADR) | : E4 |
| Packing instructions (ADR) | : P001, IBC02 |
| Mixed packing provisions (ADR) | : MP15 |
| Portable tank and bulk container instructions (ADR) | : T7 |
| Portable tank and bulk container special provisions (ADR) | : TP2 |
| Tank code (ADR) | : L4BH |
| Tank special provisions (ADR) | : TU15, TE19 |
| Vehicle for tank carriage | : AT |
| Transport category (ADR) | : 2 |
| Special provisions for carriage - Loading, unloading and handling (ADR) | : CV13, CV28 |
| Special provisions for carriage - Operation (ADR) | : S9, S19 |
| Hazard identification number (Kemler No.) | : 60 |
| Orange plates | :   |
| Tunnel restriction code (ADR) | : D/E |
| EAC code | : 2Z |

- Transport by sea

| | |
|---------------------------------|----------|
| Limited quantities (IMDG) | : 100 ml |
| Excepted quantities (IMDG) | : E4 |
| Packing instructions (IMDG) | : P001 |
| IBC packing instructions (IMDG) | : IBC02 |
| Tank instructions (IMDG) | : T7 |
| Tank special provisions (IMDG) | : TP2 |
| EmS-No. (Fire) | : F-A |
| EmS-No. (Spillage) | : S-A |
| Stowage category (IMDG) | : A |
| Stowage and handling (IMDG) | : SW2 |
| MFAG-No | : 151 |

- Air transport

| | |
|--|--------|
| PCA Excepted quantities (IATA) | : E4 |
| PCA Limited quantities (IATA) | : Y641 |
| PCA limited quantity max net quantity (IATA) | : 1L |
| PCA packing instructions (IATA) | : 654 |
| PCA max net quantity (IATA) | : 5L |
| CAO packing instructions (IATA) | : 661 |
| CAO max net quantity (IATA) | : 60L |
| ERG code (IATA) | : 6L |

- Inland waterway transport

| | |
|---------------------------|------------------|
| Classification code (ADN) | : T1 |
| Special provisions (ADN) | : 802 |
| Limited quantities (ADN) | : 100 ml |
| Excepted quantities (ADN) | : E4 |
| Carriage permitted (ADN) | : T |
| Equipment required (ADN) | : PP, EP, TOX, A |
| Ventilation (ADN) | : VE02 |

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| | |
|---|--------------------|
| Number of blue cones/lights (ADN) | : 2 |
| - Rail transport | |
| Classification code (RID) | : T1 |
| Limited quantities (RID) | : 100ml |
| Excepted quantities (RID) | : E4 |
| Packing instructions (RID) | : P001, IBC02 |
| Mixed packing provisions (RID) | : MP15 |
| Portable tank and bulk container instructions (RID) | : T7 |
| Portable tank and bulk container special provisions (RID) | : TP2 |
| Tank codes for RID tanks (RID) | : L4BH |
| Special provisions for RID tanks (RID) | : TU15 |
| Transport category (RID) | : 2 |
| Special provisions for carriage – Loading and unloading (RID) | : CW13, CW28, CW31 |
| Colis express (express parcels) (RID) | : CE5 |
| Hazard identification number (RID) | : 60 |

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains no REACH candidate substance

Contains no REACH Annex XIV substances.

15.1.2. National regulations

Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 3, strongly hazardous to water (Classification according to AwSV, Annex 1)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

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15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

| | |
|-----------|--|
| R23/24/25 | Toxic by inhalation, in contact with skin and if swallowed |
| R40 | Limited evidence of a carcinogenic effect |
| R48/23 | Toxic: danger of serious damage to health by prolonged exposure through inhalation |
| R52/53 | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment |
| R59 | Dangerous for the ozone layer |
| N | Dangerous for the environment |
| T | Toxic |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product