

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, amended by 2015/830/EU

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the product

| | |
|----------------------------|----------------------|
| Product Description | Carbon Tetrachloride |
| Pure Substance/preparation | Substance |
| CAS Number | 56-23-5 |
| EC Number | 200-262-8 |

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

| | |
|--------------------------|--|
| Relevant Identified Uses | Laboratory chemical, Manufacture of substances |
| Uses advised against | No uses advised against has been identified |

1.3 Details of the Supplier of the Safety Data Sheet

Gujrat Fluorochemicals Ltd.

12/A Dahej Industrial Estate, Taluka Vagra,
Distt. Bharuch-392130, Gujrat, India

| | |
|----------------|--|
| Website | www.gfl.co.in |
| Telephone | +91-2641-618031(Admin)/618041-50(Purchase)/618086-87(Security) |
| Fax | +91-2641-618012 |
| E-mail address | contact@gfl.co.in |

1.4 Emergency Telephone Number

| | |
|----------------------------|-------------------------------|
| Emergency telephone number | +91-2641-618086-87 (Security) |
|----------------------------|-------------------------------|

2. Hazard Identification

2.1 Classification of the substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification acc. to GHS

| | |
|------------------------------|---------------------|
| Acute Oral Toxicity | Category 3 - (H301) |
| Acute Dermal Toxicity | Category 3 - (H311) |
| Acute Inhalation Toxicity | Category 3 - (H331) |
| Carcinogenicity | Category 2 - (H351) |
| STOT – Repeated Exposure | Category 1 - (H372) |
| Chronic Aquatic Toxicity | Category 2 - (H412) |
| Hazardous to the ozone layer | Category 1 - (H420) |

2.2 Label elements

Pictogram



Signal Word

Danger

Hazard Statements

H301 Toxic if swallowed
H311 Toxic in contact with skin
H331 Toxic if inhaled
H351 Suspected of causing cancer
H372 Causes damage to organs (liver, kidney) through prolonged or repeated exposure
H412 Harmful to aquatic life with long lasting effect
H420 Harmful public health and the environment by destroying ozone in upper atmosphere

Precautionary Statements

Prevention

P201 Obtain special instruction before use.
P202 Do not handle until all safety precautions have been read and understood.
P270 Do not eat, drink or smoke while using this product.
P264 Wash face, skin and hands thoroughly after handling.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P308+P313 IF exposed or concerned: Get medical advice/attention.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P301+P310+P330 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
P321 Specific treatment (see... on this label)
P312 Call a POISON CENTRE/doctor physician if you feel unwell.

Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal

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

2.3 Other hazards

The substance does not meet the criteria for a PBT or vPvB substance

3. Composition/information on Ingredients

3.1. Substance

| Chemical name | CAS-No | EC No | Weight % | EU - GHS Substance Classification (REGULATION (EC) No 1272/2008) | REACH No. |
|----------------------|---------|-----------|----------|--|----------------------|
| Carbon Tetrachloride | 56-23-5 | 200-262-8 | <=100 | Acute Tox. 3; Carc. 2; STOT RE 1; Aquatic Chronic 3; Ozone 1; H301+H311 + H331, H351, H372, H412, H420 | No data available |

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

4. First aid measures

4.1 Description of first-aid measures

| | |
|-----------------------|---|
| General advice | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible) |
| Eye contact | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention. |
| Skin contact | Wash off immediately with soap and plenty of water for at least for 15 minutes. Take off contaminated clothing and wash before reuse. Seek immediate medical attention/advice. |
| Ingestion | Do NOT induce vomiting. Rinse mouth immediately and drink large quantities of water. Never give anything by mouth to an unconscious person. |
| Inhalation | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Seek immediate medical attention. |

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

Indication of immediate medical attention and special treatment needed

Treat symptomatically and supportively.

5. Fire-fighting measures

5.1 Extinguishing media

| | |
|---------------------------------------|--|
| Suitable extinguishing media | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media | Water jets |

5.2 Special hazards arising from the substance or mixture

| | |
|--------------------------------------|--|
| Special Hazard | Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. |
| Hazardous Combustion Products | Hazardous decomposition products formed under fire conditions: At high temperature: chlorine, perchloroethylene, hexachloroethane and other chlorinated compounds. In the presence of water and/or oxygen: hydrogen chloride, phosgene. |

5.3 Advice for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. 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

Hazardous combustion products: see section 10. Personal Protective equipment: See section 8. Incompatible materials: see section 8. Incompatible Material: see section 10. Disposal Consideration: see section 13

7. Handling and Storage

7.1 Precautions for Safe Handling

7.1.1 Handling

Avoid open handling. Whenever possible, keep the substance in closed systems and apply closed loop re-filling with vapour return lines and dry-break couplings. Use only at well-ventilated places (e.g. in a fume hood) or with extract ventilation at points where emissions occur. Avoid inhalation of vapours and skin contact with the liquid. Wear suitable personal protective equipment if exposure is likely. Limit the quantity of product in the work area for the work in hand. Do not use the substance in the vicinity of fire, hot/glowing objects or welding & cutting operations.

7.1.2 Hygiene measures

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry, cool and ventilated place. Prevent uptake of moisture, preferably store under nitrogen blanketing. Protect from impact of fire and heating. Store in double-walled containers or in bunded tanks with floors being impermeable for chlorinated solvents.

Suited materials: carbon steel, stainless steel, steel enameled or coated with zinc silicate or other resistant coatings (always ask the manufacturer of the coating material for compatibility with the sub-stance).

Unsuited materials: aluminum and magnesium and their alloys, zinc, plastics unless approved by the material supplier.

7.3 Specific end uses

Laboratory chemical, Manufacture of substances.

8. Exposure Controls/ Personal Protection

8.1 Control Parameters

Exposure Limits Apply technical measures to comply with the occupational exposure

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH | Mexico OEL (TWA) |
|---|------------------------------------|---|--|---|
| Carbon Tetrachloride (CAS - 56-23-5) | TWA: 5 ppm STEL: 10 ppm Skin | (Vacated) TWA: 2 ppm (Vacated) TWA: 12.6 mg/m3 Ceiling: 25 ppm TWA: 10 ppm | IDLH: 200 ppm STEL: 2 ppm STEL: 12.6 mg/m3 | TWA: 5 ppm TWA: 30 mg/m3 STEL: 10 ppm |

Derived No Effect level (DNEL) No information available

Predicted No Effect Concentration No information available

8.2 Exposure Controls

Appropriate Engineering Control Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to work station.

If applicable, use process enclosure, local exhaust ventilation, or other engineering controls to maintain airborne level below recommended exposure limits. If exposure limits have not been established maintain airborne levels to acceptable level.

Personal protective equipment

Eye protection Use tightly sealed safety glasses.

Skin protection Impervious long-sleeved clothing. Preventative skin protection is recommended.

Hand protection If skin contact is likely, use chemicals protecting gloves compliant to EN 374.
- Short term activity (max 15 min):
suited materials: butyl rubber or chloroprene or PVC, thickness: 0.5 mm or better (breakthrough time > 10 min). EVA laminate (breakthrough time > 30 min).
- Prolonged activity:
suited materials: fluorinated rubber or PVA, thickness: 0.5 mm or better (breakthrough time > 480 min). nitrile rubber, thickness: 0.5 mm or better (breakthrough time > 240 min)

Respiratory protection Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.
If the respirator is the sole means of 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).

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

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|-----------------------|--------------------------|
| Appearance | Liquid |
| Physical state | Colorless |
| Odor | Sweetish |
| Odor threshold | No information available |

| <u>Property</u> | <u>VALUES</u> | <u>Remarks/ Method</u> |
|---|--------------------------|------------------------|
| pH | No information available | |
| Melting point/freezing point | -22.62 °C | |
| Boiling Point/Range | 76.8 °C | |
| Flash Point | No information available | |
| Evaporation rate | No information available | |
| Flammability (solid, gas) | Not applicable | |
| Flammability or explosive limits | | |
| Upper | No data available | |
| Lower | No data available | |
| Relative Density | 1.59 at 20°C | |
| Vapor Density | No information available | |
| Vapor pressure (air = 1) | 15.2 kPa at 25°C | |
| Water solubility | 846.1 mg/L | |
| Solubility in Other Solvents | No information available | |
| Partition coefficient: n-octanol/water | Log Pow = 2.83 | |
| Autoignition temperature | No information available | |
| decomposition temperature | No information available | |
| Viscosity Kinematics | No information available | |
| Viscosity Dynamics | 1.35 mPa.s | |
| Oxidizing properties | No information available | |
| Explosive properties | No information available | |
| Molecular Formula | CCl ₄ | |
| Molecular Weight | 153.82 g/mol | |

9.2 OTHER INFORMATION

| | |
|--------------------|--------------------------|
| VOC Content | No information available |
|--------------------|--------------------------|

10. Stability and Reactivity

10.1 Reactivity

None Known, based on information available.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reaction

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Contact with hot/glowing objects or flames. Exposure to sun light / UV radiation in the presence of moisture or oxygen (air).

10.5 Incompatible Materials

Strong bases and alkali, Strong oxidising agents (e.g. CrO₃, conc. HNO₃, N₂O₅, KMnO₄, ozone), Powder of aluminium, magnesium, zinc, titanium etc., alkali and alkaline earth metals, sodium azide (all: vigorous reaction or explosion, shock sensitive mixtures).

10.6 Hazardous Decomposition Products

Thermal decomposition can lead to release of toxic, irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

Hazardous decomposition products formed under fire conditions:

At high temperature: chlorine, perchloroethylene, hexachloroethane and other chlorinated compounds. In the presence of water and/or oxygen: hydrogen chloride, phosgene.

11. Toxicological Information

11.1 Information on Toxicological Effects

Acute toxicity

Component Information

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|------------------|--------------------|------------------------|
| Carbon tetrachloride (CAS - 56-23-5) | 2500 mg/kg | >2000 mg/kg | 8000 ppm (Rat) 4 h |

Source: ECHA

Local effect

| | |
|---------------------|-----------------------------|
| Inhalation | Toxic if inhaled |
| Eye contact | Causes mild eye irritation |
| Skin contact | Causes mild skin irritation |
| Ingestion | Toxic If swallowed |

Chronic toxicity

| | |
|----------------------------------|---|
| Skin Corrosion/Irritation | Mild skin irritant |
| Eye damage/irritation | Mild eye irritant |
| sensitization | Slightly skin sensitization effect |
| Mutagenic effects | No data available |
| Carcinogenic effects | Suspected of causing cancer IARC: 2B - Group 2B: Possibly carcinogenic to humans |
| Reproductive effects | No data available |
| STOT - Single Exposure | No data available |
| STOT - repeated exposure | Causes damage to organs through prolonged or repeated exposure. - Liver, Kidney |
| Aspiration hazard | No information available |

12. Ecological Information

12.1 Ecotoxicity

Harmful to aquatic life with long lasting-effect.

| Chemical Name | Toxicity to Fish | Toxicity to Daphnia and other aquatic invertebrate | Toxicity to Algae |
|---|-------------------------|---|--------------------------|
| Carbon tetrachloride (CAS - 56-23-5) | LC50(96hr): 24.3 mg/L | EC50(48hr) : 35 mg/L | EC50(72hr) : 20 mg/l |

Source: ECHA

12.2 Persistence and Degradability

Persistence is unlikely to be based on available information.

12.3 Bioaccumulative Potential

Bioconcentration factor (BCF): 30

Carbon tetrachloride does not have significant bioaccumulative potential.

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB Assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other Adverse Effects

No other adverse effects identified.

13. Disposal Considerations

13.1 Waste Treatment Methods

Waste from Residues / Unused Products

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse empty containers. Dispose of this container to hazardous or special waste collection point.

14. Transport Information

IMDG/IMO

| | |
|-----------------------------|----------------------|
| UN-No | UN 1846 |
| Proper Shipping name | Carbon Tetrachloride |
| Hazard class | 6.1 |
| Packing group | II |
| Marine pollutant | Yes |

IATA/ICAO

| | |
|-----------------------------|----------------------|
| UN-No | UN 1846 |
| Proper Shipping name | Carbon Tetrachloride |
| Hazard class | 6.1 |
| Packing group | II |
| Marine Pollutant | Yes |

15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

International Inventories

| | |
|-----------------------|----------|
| TSCA | Complies |
| EINECS/ ELINCS | Complies |
| DSL/NDSL | Complies |
| PICCS | Complies |
| ENCS | Complies |
| IECSC | Complies |
| AICS | Complies |
| KECL | Complies |

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance.

16. Other Information

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

| | |
|-------------|---|
| H301 | Toxic if swallowed |
| H311 | Toxic in contact with skin |
| H331 | Toxic if inhaled |
| H351 | Suspected of causing cancer |
| H372 | Causes damage to organs (liver, kidney) through prolonged or repeated exposure |
| H412 | Harmful to aquatic life with long lasting effect |
| H420 | Harmful public health and the environment by destroying ozone in upper atmosphere |

| | |
|-------------------------|----------------|
| Preparation Date | 21-July-2021 |
| Revision Date | 21-July-2021 |
| Revision Note | Not applicable |

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

Disclaimer

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

End of Safety Data Sheet