

MATERIAL SAFETY DATA SHEET

CARBON TETRA CHLORIDE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name :

TRADE NAMES/SYNONYMS: Carbon Chloride, Carbon Tet, Halon 1040, R 10

Substance : Carbon Tetra Chloride CCl₄

CHEMICAL FAMILY: Chloromethane

Product Use :

Fluorocarbon Refrigerants and Propellants.

Grain fumigants and flour bleaching.

Solvent in chlorinated rubber manufacturing and petroleum refining industry

Grease removing agent for machinery and tools.

Dry-cleaning fluid.

Pharmaceutical preparation

Manufacturers: SRF Ltd. Chemicals Business
D-2/1, GIDC Phase II, P.C.P.I.R,
Dahej, Dist.-Bharuch Gujarat India
Pin Code-392130

EMERGENCY CONTACT: (24 Hours/Day, 7 Days/Week)
Mr. Hamid Hasan Sayyad
+91 – (02641) 289201, 289202

2. COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT : Carbon Tetrachloride

CAS NUMBER : 56-23-5

UN No. : 1846

PERCENTAGE: 99.9%

3. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH= 3 FIRE= 0 REACTIVITY= 0

EMERGENCY OVERVIEW:

Inhalation of high concentrations of this compound may cause dizziness, nausea and possible loss of consciousness. Chronic exposure to this material may result in toxicity to the liver. Suspect carcinogen and reproductive toxin. Non-flammable. Decomposes into phosgene and hydrogen chloride under fire conditions.

INHALATION:

SHORT TERM EXPOSURE:

Short term exposure may cause headache, dizziness and irritation to the respiratory system. Carbon tetrachloride is a central nervous system depressant and may cause loss of consciousness at high concentrations.

LONG TERM EXPOSURE:

Chronic exposures may cause liver damage.

Long term exposures may also increase the risk of some forms of cancer.

This product is suspected of having adverse reproductive effects and is an experimental mutagen.

SKIN CONTACT :

SHORT TERM EXPOSURE:

Contact with product could cause mild irritation. Prolonged contact may cause defatting of the skin and dermatitis. This product can be absorbed in harmful quantity through contact with unprotected skin.

LONG TERM EXPOSURE:

EYE CONTACT:

SHORT TERM EXPOSURE:

Contact with product may cause mild irritation.

LONG TERM EXPOSURE:

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INGESTION:**SHORT TERM EXPOSURE:**

Ingestion effects are similar to effects from inhalation.

LONG TERM EXPOSURE:**4. FIRST AID MEASURES****INHALATION:**

Prompt medical attention is mandatory in all cases of overexposure. Rescue personnel should be equipped with self-contained breathing apparatus.

Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area and given artificial resuscitation and supplemental oxygen. Medical assistance should be sought immediately.

Further treatment should be symptomatic and supportive

SKIN CONTACT:

Remove contaminated clothing and flush affected areas with water. Seek medical attention.

EYE CONTACT:

Flush eyes immediately with lukewarm water for at least 15 minutes. A physician should see the patient promptly.

INGESTION:

CALL LOCAL POISON CONTROL CENTER. If conscious, induce vomiting and continue until vomit is clear.

A physician should see the patient promptly.

NOTE TO PHYSICIAN:**5. FIRE FIGHTING MEASURES**

FLAMMABLE PROPERTIES : Non Flammable

FLASH POINT: NA

FLASH POINT METHOD: NA

AUTOIGNITION TEMPERATURE: NA

UPPER FLAME LIMIT (volume % in air): NA

LOWER FLAME LIMIT (volume % in air): NA

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FLAME PROPAGATION RATE (solids): NA
OSHA FLAMMABILITY CLASS: NA
EXTINGUISHING MEDIA: NA

UNUSUAL FIRE AND EXPLOSION HAZARDS:
 Decomposes under fire conditions into phosgene and hydrogen chloride.

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS:

6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR OTHER RELEASE:

(YDFXDWH DOO SHUVRQQHO IURP DIIHFWHG DUHD. 8VH DSSURSULDWH SURWHFWLYH HTXLSPHQW.)
 equipment, be certain to purge piping with inert gas prior to attempting repairs. If leak is in container or container valve, contact the appropriate emergency telephone number listed in Section 1 or call your closest BOC location.

7. HANDLING AND STORAGE

NORMAL HANDLING:

Use only in well-ventilated areas. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Protect containers from physical damage.
 Never carry a compressed gas cylinder or a container of a gas in cryogenic liquid form in an enclosed space such as a car trunk, van or station wagon. A leak can result in a fire, explosion, asphyxiation or a toxic exposure.

STORAGE RECOMMENDATIONS:

Store in cool, dry, well-ventilated area away from heavily trafficked areas and emergency exits. Do not allow the temperature where containers are stored to exceed 130oF (54oC). Containers should be stored upright and firmly secured to prevent falling or being knocked over. Full and empty containers should be segregated. Use a "first in-first out" inventory system to prevent full containers being stored for excessive periods of time. Vapors should not be allowed to contact open flames. For additional storage recommendations, consult Compressed *D V \$VVRFLDWLRQ¶V 3DPSKOHW 3-1.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES

INGREDIENT NAME	ACGIH TLV	OSHA PEL	OTHER LIMIT
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Carbon Tetrachloride 5 ppm TWA 10 ppm STEL Skin 10 ppm TWA 25 ppm Ceiling

OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:

LD50 2350 mg/kg (rat)

ENGINEERING CONTROLS:

Hood with forced ventilation. Use local exhaust to prevent accumulation above the exposure limit.

PERSONAL PROTECTIVE EQUIPMENT

SKIN PROTECTION: Protective Gloves: Nitrile or Viton.

EYE PROTECTION: Safety goggles or glasses

RESPIRATORY PROTECTION: Positive pressure air line with full-face mask and escape bottle or self-contained breathing apparatus should be available for emergency use.

ADDITIONAL RECOMMENDATIONS:

Safety shoes, safety shower, eyewash "fourWDLQ."

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

APPEARANCE: CLEAR,

COLOR: COLOURLESS

ODOR: Strong ethereal odor.

MOLECULAR WEIGHT: 154

MOLECULAR FORMULA: CCl₄

BOILING POINT: 76.8 C °

MELTING/ FREEZING POINT: -22.6 C °

VAPOR PRESSURE: 98 mm Hg

VAPOR DENSITY (air=1): 5.5

SPECIFIC GRAVITY: 1.59

WATER SOLUBILITY: Insoluble (0.08%)

PH: Not Available

VOLATILITY: Not Available

ODOR THRESHOLD: Not Available

EVAPORATION RATE: Not Available

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not Available

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10. STABILITY AND REACTIVITY

NORMALLY STABLE? (CONDITIONS TO AVOID):

Stable.

INCOMPATIBILITIES:

Reacts with zinc, aluminum and alkali metals. Decomposes in open flame or at high temperatures.

HAZARDOUS DECOMPOSITION PRODUCTS:

Hydrogen chloride, phosgene.

HAZARDOUS POLYMERIZATION:

Will not occur.

11. TOXICOLOGICAL INFORMATION

IMMEDIATE (ACUTE) EFFECTS:

As per Section 3.0

DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS:

As per Section 3.0

OTHER DATA:

TUMORIGENIC:

An experimental carcinogen in experimental animal studies including rats, mice and hamsters.

REPRODUCTIVE:

Developmental defects observed following inhalation exposure of pregnant rats to 250 ppm for 8 hours.

MUTAGENIC:

A mutagen in mammalian and bacterial cell assay systems.

OTHER:

Degenerative changes to liver following chronic inhalation exposure in multiple animal studies with mammalian species including rats, mice, rabbits, guinea pigs, dogs and monkeys. Toxic effects to the lungs, immune system and bladder have also been reported in animal studies with mammalian species.

12. ECOLOGICAL INFORMATION

No data given.

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13. DISPOSAL CONSIDERATIONS

Do not attempt to dispose of residual waste or unused quantities. Return in the shipping container PROPERLY LABELED, WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE to SRF Ltd. or authorized distributor for proper disposal.

14. TRANSPORT INFORMATION

PARAMETER United States DOT Canada TDG

PROPER SHIPPING NAME: Carbon Tetrachloride, Carbon Tetrachloride

HAZARD CLASS: 6.1 6.1 (9.2)

IDENTIFICATION NUMBER: UN 1846 UN 1846

SHIPPING LABEL: POISON POISON

Additional Marking Requirement: If net weight of product > 10 pounds, the container must be also PDUNHG ZLWK WKH OHWWHUV 354'. **Additional Shipping Paper Description Requirement:** If net weight RI SURGXFW ! __ SRXQGV, WKH VKLSSLQJ SDSHUV PXVW EH DOVR PDUNHG ZLWK WKH OHWWHUV 354'.

15. REGULATORY INFORMATION

SARA TITLE III NOTIFICATIONS AND INFORMATION

Releases of carbon tetrachloride in quantities equal to or greater than the reportable quantity (RQ) of 10 pounds are subject to reporting to the National Response Center under CERCLA, Section 304 SARA Title III.

SARA TITLE III - HAZARD CLASSES:

Acute Health Hazard
Chronic Health Hazard

SARA TITLE III - SECTION 313 SUPPLIER NOTIFICATION:

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372: CAS NUMBER INGREDIENT NAME PERCENT BY VOLUME
56-23- 5 CARBON TETRACHLORIDE 100.0

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16. OTHER INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

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