

## Chemical Safety Data Sheet

### Section 1 IDENTIFICATION

**GHS Product identifier:** Tetrachloroethylene.

**Other means of identification:** Perchloroethylene.

**Recommended use of the chemical and restrictions on use:** This product can be used as solvent, metal surface cleaners, etc. It can also be used in organic synthesis.

**Supplier's details:** LIAOCHENG LUXI CHLOROMETHANE CHEMICAL CO., LTD.

**Emergency phone number:** /

### Section 2 HAZARDS IDENTIFICATION

**Classification of the substance or mixture:**

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2

Carcinogenicity Category 1

Specific target organ toxicity, repeated exposure Category 2 (oral, inhalation, liver)

Hazardous to the aquatic environment, acute-term hazard Category 1

Hazardous to the aquatic environment, long-term hazard Category 2

**GHS Label elements, including precautionary statements:**

Symbol:



Signal word: Danger

Hazard statement(s): Causes skin irritation. Causes serious eye irritation. May cause cancer. May cause damage to organs through prolonged or repeated exposure (oral, inhalation, liver). Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Precautionary statement(s):

Prevention:

Wash ...thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid release to the environment.

Response:

If on skin: Wash with plenty water/...Specific treatment (see under for further information). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell. Collect spillage.

Storage:

Store locked up.

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other hazards which do not result in classification: /**

### Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration%
Tetrachloroethylene	127-18-4	99.99%

### Section 4 FIRST AID MEASURES

**Description of necessary first aid measures**

**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 running water. Consult a physician.

**In case of eye contact:** Rinse thoroughly with plenty of running water for at least 15 minutes and consult a physician.

**If ingestion:** Rinse mouth with water. Consult a physician.

**Most important symptoms/effects, acute and delayed: /**

**Indication of immediate medical attention and special treatment needed, if necessary: /**

### Section 5 FIREFIGHTING MEASURES

**Suitable extinguishing media:** Water spray or fog. Foam. Dry chemical powder. Carbon dioxide.

**Special hazards arising from the chemical:** This material is non-flammable. However containers may burn.

**Special protective actions for fire-fighters:** Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.

### Section 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment.

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up:** Minor Spills: Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Major Spills: Stop leak if safe to do so. Water spray or fog may be used to disperse / absorb vapour. Contain or absorb spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using. If contamination of drains or waterways occurs, advise emergency services.

### Section 7 HANDLING AND STORAGE

**Precautions for safe handling:** There should be sufficient local exhaust in workplace. Operators should be trained and strictly follow the operating procedures. Operators are advised to wear gas masks, anti-poison

suits and rubber gloves. Operators should load and unload lightly during handling to prevent damage to the package. There should be leakage treatment equipment in workplace. There may be harmful residues in empty containers.

**Conditions for safe storage, including any incompatibilities:** Store in a cool, dry, well-ventilated warehouse. Keep away from fire and heat. Protect from direct sunlight. The package should be sealed and not exposed to moisture. It should be stored separately from oxidants, flammable materials, etc., and should not be mixed. The storage area should be provided with suitable materials to contain spills.

#### Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Control parameters:

Source	Material name	TWA	STEL
China Occupational Exposure Limits for Hazardous Agents in the Workplace	Tetrachloroethylene	200 (mg/m <sup>3</sup> )	/

**Appropriate engineering controls:** Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.

##### Individual protection measures

**Eye/face protection:** Wear a gas mask.

**Skin protection:** Wear an anti-poison suit.

**Respiratory protection:** Type A Filter of sufficient capacity.

**Thermal hazards:** /

#### Section 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance (physical state, colour etc)</b>	Colorless transparent liquid.
<b>Odour</b>	/
<b>Odour Threshold</b>	/
<b>pH</b>	6.73.
<b>Melting point/freezing point</b>	-22°C.
<b>Initial boiling point and boiling range</b>	121°C.
<b>Flash point</b>	/
<b>Evaporation rate</b>	/
<b>Flammability (solid, gas)</b>	/
<b>Upper/lower flammability or explosive limits</b>	/
<b>Vapour pressure</b>	1.9 kPa (20°C).
<b>Vapour density</b>	5.7.
<b>Relative density</b>	1.62.
<b>Solubility(ies)</b>	0.015 g/100ml (20°C).
<b>Partition coefficient: n-octanol/water</b>	3.4.
<b>Auto-ignition temperature</b>	>650°C.
<b>Decomposition temperature</b>	/
<b>Viscosity</b>	/

#### Section 10 STABILITY AND REACTIVITY

**Reactivity:** /

**Chemical stability:** This material is stable in normal temperature.

**Possibility of hazardous reactions:** Decomposes on contact with hot surfaces or flames. This produces toxic and corrosive fumes of hydrogen chloride, phosgene and chlorine. Decomposes slowly on contact with moisture. This produces trichloroacetic acid and hydrochloric acid. Reacts violently with finely divided metals. This generates fire and explosion hazard.

**Conditions to avoid:** Spark, static electricity and high temperature.

**Incompatible materials:** Flammable materials and oxidizers.

Hazardous decomposition products: carbon dioxide (CO<sub>2</sub>), hydrogen chloride, phosgene. May emit poisonous fumes.

#### Section 11 TOXICOLOGICAL INFORMATION

**Information on the likely routes of exposure:** Inhaled, swallowed, skin, eyes.

**Symptoms related to the physical, chemical and toxicological characteristics:** /

**Acute health effects:** Inhalation of the material may produce respiratory tract irritation. Accidental ingestion of the material may be harmful and cause nausea, vomit, throat pain. This material may produce skin and eyes irritation..

**Chronic health effects:** Repeated or prolonged contact with skin may cause dermatitis. The substance may have effects on the liver, kidneys and central nervous system. This substance is probably carcinogenic to humans.

**Numerical measures of toxicity(such as acute toxicity estimates):** /

#### Section 12 ECOLOGICAL INFORMATION

##### Toxicity:

Endpoint	Test Duration (hr)	Species	Value
LC50	96	Fish	0.797mg/L
EC50	48	Crustacea	2.49mg/L
EC50	72	Algae or other aquatic plants	~0.2mg/L
BCF	240	Fish	350mg/L
NOEC	168	Crustacea	0.33mg/L

**Persistence and degradability:** High (Half-life = 720 days).

**Bioaccumulative potential:** Low (BCF = 77.1).

**Mobility in soil:** Low (KOC = 106.8).

**Other adverse effects:** /

#### Section 13 DISPOSAL CONSIDERATIONS

**Disposal methods:** Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Authority for disposal. Bury or incinerate residue at an approved site. Recycle containers if possible, or dispose of in an authorised landfill. Dispose this product by safe burial. Damaged containers are prohibited from being reused and should be buried in the prescribed place.

#### Section 14 TRANSPORT INFORMATION

**UN number:** 1897.  
**UN proper shipping name:** TETRACHLOROETHYLENE.  
**Transport hazard class(es):** 6.1.  
**Packing group, if applicable:** III.  
**Environmental hazards:** Marine pollutant.  
**Special precautions for user:** /

## Section 15 REGULATORY INFORMATION

**Regulations:** This safety data sheet is in compliance with the following national standards: GB/T 16483-2008, GB 13690-2009, GB 18218-2018, GB 15258-2009, GB 6944-2012, GB 190-2009, GB/T 191-2008, GB 12268-2012, GB/T 15098-2008, GBZ 2.1-2007, GBZ 2.2-2007 as well as the following regulations: Railway Dangerous Goods Transport Administrative Regulation, Dangerous Chemicals Safety Administrative Regulation.

## Section 16 OTHER INFORMATION

<b>References</b>	UN Recommendations on the Transport of Dangerous Goods Model Regulations UN Globally Harmonized System of Classification and Labelling of Chemicals
<b>Form Date</b>	24-Mar-2020

Note 1: When products contain two or more hazardous substances, Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2: Manufacturer/supplier should ensure the correctness of the information contained in the safety data sheets, and updated in a timely manner.

Note 3: As a result of product features without the existence of certain information or no data available (such as boiling point does not exist for the solid) in the table with "/" logo.