

# MATERIAL SAFETY DATA SHEET

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Titanium Tetrachloride



**DAYU CHEMICAL**  
Dedication Around Your Utilizing

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

### 1.1 Product identifiers

Product name	Titanium Tetrachloride
CAS number	7550-45-0
Molecular formula	Cl <sub>4</sub> Ti
Chemical structure	$\begin{array}{c} \text{Cl}^- \\ \text{Cl}^- \quad \text{Ti}^{4+} \quad \text{Cl}^- \\ \text{Cl}^- \end{array}$
Molecular weight	189.68
Appearance	Colorless liquid

### 1.2 Details of the supplier of the material safety data sheet

Company	SHAANXI DAYU CHEMICAL CO., LTD.
Address	Building NO.8, XiShi Jiajun, , XiShi 2nd Road, Lianhu District, Xi'an, Shaanxi, China
Telephone	0086-29-88643345
Email	info@dayuchemical.com
Website	www.hidayuchemical.com

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## SECTION 2: Composition/information on ingredients

Product name	Titanium Tetrachloride
CAS number	7550-45-0
Purity	≥ 99%

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### **SECTION 3: Hazards identification**

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Inhalation (Category 2), H330

Skin corrosion (Category 1B), H314

Specific target organ toxicity - single exposure (Category 1), H370

Specific target organ toxicity - repeated exposure (Category 1), H372

Classification according to EU Directives 67/548/EEC or 1999/45/EC

R14 T, C Toxic, Corrosive R23, R34, R39/23, R48/23

Signal word Danger

Hazard statement(s)

Causes severe skin burns and eye damage.

Fatal if inhaled.

Causes damage to organs.

Causes damage to organs through prolonged or repeated exposure.

Precautionary statement(s)

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

Wear protective gloves/ protective clothing/ eye protection/ face protection.

Wear respiratory protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a Poison center or doctor/ physician.

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### **SECTION 4: First aid measures**

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

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take

victim immediately to hospital. 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

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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## **SECTION 5: Firefighting measures**

Extinguishing media

Suitable extinguishing media

Dry powder

Special hazards arising from the substance or mixture

Hydrogen chloride gas, Titanium/titanium oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

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## **SECTION 6: Accidental release measures**

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas.

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

Soak up with inert absorbent material and dispose of as hazardous waste. Do not flush with water. Keep in suitable, closed containers for disposal.

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## **SECTION 7: Handling and storage**

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

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.

Keep away from water. Never allow product to get in contact with water during storage.

Handle and store under inert gas. Moisture sensitive. Reacts violently with water.

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## **SECTION 8: Exposure controls/personal protection**

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). 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

Complete suit protecting against chemicals, Flame retardant protective 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 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).

Control of environmental exposure

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

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## **SECTION 9: Physical and chemical properties**

Appearance Form: liquid

Odour No data available

Odour Threshold No data available

pH No data available

Melting point/freezing point

Melting point/range: -25 °C  
Initial boiling point and boiling range 136,4 °C  
Flash point No data available  
Evaporation rate No data available  
Flammability or explosive limits No data available  
Vapour pressure 12,8 hPa at 20 °C 67 hPa at 55 °C  
Vapour density No data available  
Relative density 1,73 g/mL at 20 °C  
Water solubility insoluble  
No data available Auto-ignition  
temperature no data available  
Decomposition temperature no data available  
Viscosity No data available  
Explosive properties No data available  
Oxidizing properties No data available

Other safety information  
No data available

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## **SECTION 10: Stability and reactivity**

Reactivity No data available  
Chemical stability Stable under recommended storage conditions.  
Possibility of hazardous reactions  
Reacts violently with water.  
Conditions to avoid  
Exposure to moisture  
Incompatible materials  
Strong oxidizing agents, Water  
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Hazardous decomposition products  
Other decomposition products - No data available

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## **SECTION 11: Toxicological information**

Information on toxicological effects  
Acute toxicity No data available  
LC50 Inhalation - Rat - 1 h - 1.300 mg/m<sup>3</sup>  
  
Skin corrosion/irritation Skin - Guinea pig  
Result: Causes burns.  
Serious eye damage/eye irritation No data available

Respiratory or skin sensitisation No data available

Germ cell mutagenicity No data available

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

Specific target organ toxicity - single exposure

Causes damage to organs.

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard No data available

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## **SECTION 12: Ecological information**

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

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.

Other adverse effects

No data available

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## **SECTION 13: Disposal considerations**

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

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## **SECTION 14: Transport information**

UN number

ADR/RID: 1838

IMDG: 1838

IATA: 1838

UN proper shipping name

ADR/RID: TITANIUM TETRACHLORIDE

IMDG: TITANIUM TETRACHLORIDE

IATA: Titanium tetrachloride

Passenger Aircraft: Not permitted for transport

Cargo Aircraft: Not permitted for transport

Transport hazard class(es)

ADR/RID: 6.1 (8)

IMDG: 6.1 (8)

IATA: 6.1 (8)

Packaging group

ADR/RID: I

IMDG: I

IATA: -

Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

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## **SECTION 15: Regulatory information**

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

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

No data available

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

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## **SECTION 16: Other 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. SHAANXI DAYU CHEMICAL CO., LTD. shall not be held liable for any damage resulting from handling or from contact with the above product. Please see additional terms and conditions for reference.