# SAFETY DATA SHEET
according to GB/T 16483 and GB/T 17519

# Titanium Tetrachloride

| Version | Revision Date: | SDS Number: | Date of last issue: 2024/10/16 |
|---|---|---|---|
| 5.0 | 2025/05/29 | 1329150-00034 | Date of first issue: 2017/02/27 |

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Titanium Tetrachloride

SDS-Identcode : 130000016201

**Manufacturer or supplier's details**

Company : The Chemours Chemical (Shanghai) Co., Ltd.

Address : 9F, SCG Parkside, 868 Yinghua Road, Pudong New District 201204, Shanghai, China

Telephone : 86 400 8056 528

Emergency telephone number : 86 532 8388 9090

E-mail address : SDS.ChinaPSR@chemours.com

Telefax : 86 21 2612 0862

**Recommended use of the chemical and restrictions on use**

Recommended use : Chemical intermediate

Restrictions on use : For industrial use only.
For professional users only.
Do not use or resell Chemours™ materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless agreed to by Seller in a written agreement covering such use. For further information, please contact your Chemours representative.

## 2. HAZARDS IDENTIFICATION

**Emergency Overview**

**Appearance** : liquid
**Colour** : colourless, light yellow
**Odour** : irritating, acidic

Causes severe skin burns and eye damage. Fatal if inhaled. Causes damage to organs (Lungs) if inhaled. Causes damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

**GHS Classification**

Acute toxicity (Inhalation) : Category 1

| | | |
|---|---|---|
| Skin corrosion/irritation | : | Sub-category 1B |
| Serious eye damage/eye irritation | : | Category 1 |
| Specific target organ toxicity - single exposure (Inhalation) | : | Category 1 (Lungs) |
| Specific target organ toxicity - repeated exposure (Inhalation) | : | Category 1 (Respiratory Tract) |

**GHS label elements**

Hazard pictograms :

Signal word : Danger

Hazard statements :
H314 Causes severe skin burns and eye damage.
H330 Fatal if inhaled.
H370 Causes damage to organs (Lungs) if inhaled.
H372 Causes damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

Precautionary statements :

**Prevention:**

P260 Do not breathe mist or vapours.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
P284 Wear respiratory protection.

**Response:**

P301 + P330 + P331 + P316 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get emergency medical help immediately.
P302 + P361 + P354 + P316 IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes. Get emergency medical help immediately.
P304 + P340 + P316 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get emergency medical help immediately.
P305 + P354 + P338 + P316 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get emergency medical help immediately.
P308 + P316 IF exposed or concerned: Get emergency medi-

cal help immediately.
P363 Wash contaminated clothing before reuse.

**Storage:**

P405 Store locked up.

**Disposal:**

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

**Physical and chemical hazards**

Not classified based on available information.

**Health hazards**

Fatal if inhaled. Causes severe skin burns and eye damage. Causes serious eye damage. Causes damage to organs if inhaled. Causes damage to organs through prolonged or repeated exposure if inhaled.

**Environmental hazards**

Not classified based on available information.

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

Reacts with water to form hydrochloric acid.
Severe chemical and thermal burns may result from reaction with water.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
When there is a release of TiCl4 evaluate the effects of the downwind hazard. Unprotected personnel should be moved upwind or crosswind out of the danger area. For other than minor leaks, the emergency response plan should be implemented. Cover a spill with fume suppressant that has proven successful in suppressing fumes. If suppressant is not available use large quantities of water. Do not add water to TiCl4 in a tank or confined space. Neutralize a pool with lime, caustic soda, caustic potash, or soda ash.
Corrosive to the respiratory tract.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Substance name : Titanium tetrachloride

CAS-No. : 7550-45-0

**Components**

| Chemical name | CAS-No. | Concentration (% w/w) |
|---|---|---|
| Titanium tetrachloride | 7550-45-0 | <= 100 |

## 4. FIRST AID MEASURES

General advice : Have dry cloth or towels readily available.
In the case of accident or if you feel unwell, seek medical ad-

vice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

| | | |
|---|---|---|
| If inhaled | : | If inhaled, remove to fresh air.<br>If not breathing, give artificial respiration.<br>If breathing is difficult, give oxygen.<br>Get medical attention immediately. |
| In case of skin contact | : | Carefully wipe away until product is fully removed from skin.<br>Wash off with plenty of water.<br>Get medical attention immediately.<br>Wash clothing before reuse.<br>Thoroughly clean shoes before reuse. |
| In case of eye contact | : | In case of contact, immediately wipe with towel until product is fully removed.<br>If in eyes, rinse with water for 15 minutes.<br>If easy to do, remove contact lens, if worn.<br>Get medical attention immediately. |
| If swallowed | : | If swallowed, DO NOT induce vomiting.<br>If vomiting occurs have person lean forward.<br>Call a physician or poison control centre immediately.<br>Rinse mouth thoroughly with water.<br>Never give anything by mouth to an unconscious person. |
| Most important symptoms and effects, both acute and delayed | : | Causes digestive tract burns.<br>Corrosive to respiratory system.<br>Causes serious eye damage.<br>Fatal if inhaled.<br>Causes damage to organs if inhaled.<br>Causes damage to organs through prolonged or repeated exposure if inhaled.<br>Causes severe burns. |
| Protection of first-aiders | : | First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8). |
| Notes to physician | : | Treat symptomatically and supportively. |

## 5. FIREFIGHTING MEASURES

| | | |
|---|---|---|
| Suitable extinguishing media | : | Alcohol-resistant foam<br>Carbon dioxide (CO2)<br>Dry chemical |
| Unsuitable extinguishing media | : | Water |

| | | |
|---|---|---|
| Specific hazards during fire-fighting | : | Exposure to combustion products may be a hazard to health.<br>Reacts violently with water. |
| Hazardous combustion products | : | No hazardous combustion products are known |
| Specific extinguishing methods | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.<br>Use water spray to cool unopened containers.<br>Remove undamaged containers from fire area if it is safe to do so.<br>Evacuate area. |
| Special protective equipment for firefighters | : | In the event of fire, wear self-contained breathing apparatus.<br>Use personal protective equipment. |

### 6. ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|---|
| Personal precautions, protective equipment and emergency procedures | : | Evacuate personnel to safe areas.<br>Only trained personnel should re-enter the area.<br>Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8). |
| Environmental precautions | : | Avoid release to the environment.<br>Prevent further leakage or spillage if safe to do so.<br>Prevent spreading over a wide area (e.g. by containment or oil barriers).<br>Retain and dispose of contaminated wash water.<br>Local authorities should be advised if significant spillages cannot be contained. |
| Methods and materials for containment and cleaning up | : | Soak up with inert absorbent material.<br>For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.<br>Clean up remaining materials from spill with suitable absorbent.<br>Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.<br>Sections 13 and 15 of this SDS provide information regarding certain local or national requirements. |

## 7. HANDLING AND STORAGE

**Handling**

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.

Advice on safe handling : Do not get on skin or clothing.
Do not breathe mist or vapours.
Do not swallow.
Do not get in eyes.
Wash skin thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep container tightly closed.
Keep away from water.
Protect from moisture.
Do not eat, drink or smoke when using this product.
Take care to prevent spills, waste and minimize release to the environment.

Avoidance of contact : Water

**Storage**

Conditions for safe storage : Keep in properly labelled containers.
Store locked up.
Keep tightly closed.
Keep in a cool, well-ventilated place.
Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:
Self-reactive substances and mixtures
Organic peroxides
Oxidizing agents
Explosives

Packaging material : Unsuitable material: None known.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Components with workplace control parameters**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---|---|---|---|---|
| Titanium tetrachloride | 7550-45-0 | C | 0.5 ppm | ACGIH |

| | | | | |
|---|---|---|---|---|
| | | | (Hydrogen chloride) | |

**Occupational exposure limits of decomposition products**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---|---|---|---|---|
| Hydrochloric acid | 7647-01-0 | MAC | 7.5 mg/m3 | CN OEL |
| | | C | 2 ppm | ACGIH |

**Engineering measures** : Processing may form hazardous compounds (see section 10).
Minimize workplace exposure concentrations.
If sufficient ventilation is unavailable, use with local exhaust ventilation.

**Personal protective equipment**

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Combined acidic and inorganic gas/vapour type

Eye/face protection : Wear the following personal protective equipment:
Chemical resistant goggles must be worn.
If splashes are likely to occur, wear:
Face-shield

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hand protection
Material : Latex gloves

Material : Viton®

Material : PVC

Material : Neoprene

Material : Nitrile rubber

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications,

we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday. Breakthrough time is not determined for the product. Change gloves often!

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Appearance | : | liquid |
| Colour | : | colourless, light yellow |
| Odour | : | irritating, acidic |
| Odour Threshold | : | No data available |
| pH | : | No data available |
| Melting point/freezing point | : | -24 °C |
| Initial boiling point and boiling range | : | 136 °C |
| Flash point | : | does not flash |
| Evaporation rate | : | No data available |
| Flammability (solid, gas) | : | Not applicable |
| Flammability (liquids) | : | No data available |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Vapour pressure | : | 13 hPa (21.3 °C) |
| Relative vapour density | : | 4.9 |

(Air = 1.0)

| | | |
|---|---|---|
| Relative density | : | 1.726 (20 °C) |
| Solubility(ies) | | |
| Water solubility | : | hydrolyses |
| Partition coefficient: n-octanol/water | : | No data available |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity | | |
| Viscosity, kinematic | : | No data available |
| Explosive properties | : | Not explosive |
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing. |
| Particle characteristics | | |
| Particle size | : | Not applicable |

## 10. STABILITY AND REACTIVITY

| | | |
|---|---|---|
| Reactivity | : | Not classified as a reactivity hazard. |
| Chemical stability | : | Stable under normal conditions. |
| Possibility of hazardous reactions | : | Reacts with water.<br>Hazardous decomposition products will be formed upon contact with water or humid air. |
| Conditions to avoid | : | Avoid contact with water. Wet material may evolve flammable hydrogen gas.<br>Exposure to moisture |
| Incompatible materials | : | Water |

**Hazardous decomposition products**

| | | |
|---|---|---|
| Contact with water or humid air | : | Hydrochloric acid<br>Dichloride titanium oxide |

## 11. TOXICOLOGICAL INFORMATION

| | | |
|---|---|---|
| Exposure routes | : | Inhalation |

Skin contact
Ingestion
Eye contact

**Acute toxicity**

Fatal if inhaled.

**Product:**

| | | |
|---|---|---|
| Acute inhalation toxicity | : | Acute toxicity estimate: 0.46 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapour<br>Method: Calculation method |

**Components:**

**Titanium tetrachloride:**

| | | |
|---|---|---|
| Acute inhalation toxicity | : | LC50 (Rat): 0.46 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapour<br><br>Assessment: Corrosive to the respiratory tract. |

**Skin corrosion/irritation**

Causes severe burns.

**Components:**

**Titanium tetrachloride:**

| | | |
|---|---|---|
| Species | : | Human |
| Result | : | Corrosive after 3 minutes to 1 hour of exposure |

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Components:**

**Titanium tetrachloride:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | Irreversible effects on the eye |

**Respiratory or skin sensitisation**

**Skin sensitisation**

Not classified based on available information.

**Respiratory sensitisation**

Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Components:**

**Titanium tetrachloride:**

| | | |
|---|---|---|
| Germ cell mutagenicity - Assessment | : | Weight of evidence does not support classification as a germ cell mutagen. |

**Carcinogenicity**

Not classified based on available information.

**Components:**

**Titanium tetrachloride:**

| | | |
|---|---|---|
| Carcinogenicity - Assessment | : | Weight of evidence does not support classification as a carcinogen |

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Causes damage to organs (Lungs) if inhaled.

**Components:**

**Titanium tetrachloride:**

| | | |
|---|---|---|
| Exposure routes | : | inhalation (vapour) |
| Target Organs | : | Lungs |
| Assessment | : | Shown to produce significant health effects in animals at concentrations of 10 mg/l/4h or less. |

**STOT - repeated exposure**

Causes damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

**Components:**

**Titanium tetrachloride:**

| | | |
|---|---|---|
| Exposure routes | : | inhalation (vapour) |
| Target Organs | : | Respiratory Tract |
| Assessment | : | Shown to produce significant health effects in animals at concentrations of 0.2 mg/l/6h/d or less. |

**Repeated dose toxicity**

**Components:**

**Titanium tetrachloride:**

| | | |
|---|---|---|
| Species | : | Rat |
| LOAEL | : | 0.0001 mg/l |

| | | |
|---|---|---|
| Application Route | : | inhalation (vapour) |
| Exposure time | : | 2 yr |
| Method | : | OECD Test Guideline 452 |
| Symptoms | : | Respiratory disorder |

**Aspiration toxicity**

Not classified based on available information.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Components:**

**Titanium tetrachloride:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Cyprinodon variegatus (sheepshead minnow)): > 1,000 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203<br>Remarks: Based on data from similar materials |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 100 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202<br>Remarks: Based on data from similar materials |

**Persistence and degradability**

**Components:**

**Titanium tetrachloride:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Readily biodegradable.<br>Remarks: The product is miscible in water and readily biodegradable in both water and soil. Accumulation is not expected. |

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

## 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

| | | |
|---|---|---|
| Waste from residues | : | Do not dispose of waste into sewer. |

Dispose of in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### International Regulations

**UNRTDG**

| | | |
|---|---|---|
| UN number | : | UN 1838 |
| Proper shipping name | : | TITANIUM TETRACHLORIDE |
| Class | : | 6.1 |
| Subsidiary risk | : | 8 |
| Packing group | : | I |
| Labels | : | 6.1 (8) |
| Environmentally hazardous | : | no |

**IATA-DGR**
Not permitted for transport

**IMDG-Code**

| | | |
|---|---|---|
| UN number | : | UN 1838 |
| Proper shipping name | : | TITANIUM TETRACHLORIDE |
| Class | : | 6.1 |
| Subsidiary risk | : | 8 |
| Packing group | : | I |
| Labels | : | 6.1 (8) |
| EmS Code | : | F-A, S-B |
| Marine pollutant | : | no |

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
Not applicable for product as supplied.

### National Regulations

**GB 6944/12268**

| | | |
|---|---|---|
| UN number | : | UN 1838 |
| Proper shipping name | : | TITANIUM TETRACHLORIDE |
| Class | : | 6.1 |
| Subsidiary risk | : | 8 |
| Packing group | : | I |
| Labels | : | 6.1 (8) |
| Marine pollutant | : | no |

**Special precautions for user**
The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## 15. REGULATORY INFORMATION

**National regulatory information**

**Law on the Prevention and Control of Occupational Diseases**

**Regulations on Safety Management of Hazardous Chemicals**

| | | |
|---|---|---|
| Catalogue of Hazardous Chemicals | : | Listed |

Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218)

| No. / Code | Chemical name / Category | Threshold quantity |
|---|---|---|
| J2 | Acute toxic | 50 t |

| | | |
|---|---|---|
| Hazardous Chemicals for Priority Management under SAWS | : | Listed |
| Catalogue of Specially Controlled Hazardous Chemicals | : | Not listed |
| List of Explosive Precursors | : | Not listed |

**Regulations on Labour Protection in Workplaces where Toxic Substances are Used**

| | | |
|---|---|---|
| Catalogue of Highly Toxic Chemicals | : | Not listed |

**Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals**

| | | |
|---|---|---|
| China Severely Restricted Toxic Chemicals for Import and Export | : | Not listed |

**Regulation on the Administration of Precursor Chemicals**

| | | |
|---|---|---|
| Catalogue and Classification of Precursor Chemicals | : | Not listed |

**Yangtze River Protection Law**

This product does not contain any dangerous chemicals prohibited for inland river transport.

**Regulations of Ozone Depleting Substances Management**

| | | |
|---|---|---|
| List of Controlled Ozone Depleting Substances Import and Export | : | Not listed |
| List of Controlled Ozone Depleting Substances | : | Not listed |

**Environmental Protection Law**

| | | |
|---|---|---|
| List of Priority Controlled Chemicals | : | Not listed |
| List of Key Controlled New Pollutants | : | Not listed |

## 16. OTHER INFORMATION

| | | |
|---|---|---|
| Revision Date | : | 2025/05/29 |

| | | |
|---|---|---|
| Other information | : | Chemours™ and the Chemours Logo are trademarks of The Chemours Company.<br>Before use read Chemours safety information.<br>For further information contact the local Chemours office or nominated distributors.<br>Do not use or resell Chemours™ materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless agreed to by Seller in a written agreement covering such use. For further information, please contact your Chemours representative. |

**Further information**

| | | |
|---|---|---|
| Sources of key data used to compile the Safety Data Sheet | : | Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/ |

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

| | | |
|---|---|---|
| Date format | : | yyyy/mm/dd |

**Full text of other abbreviations**

| | | |
|---|---|---|
| ACGIH | : | USA. ACGIH Threshold Limit Values (TLV) |
| CN OEL | : | Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents. |
| ACGIH / C | : | Ceiling limit |
| CN OEL / MAC | : | Maximum allowable concentration |

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Develop-

ment; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

CN / EN