

## Titanium Chloride (III) 12% (12.0 % min)

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Titanium Chloride (III) 12% (12.0% min)

**Synonyms/Generic Names:** None

**Product Number:** 5856

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer:** Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI. 53925

**For More Information Call:** 920-623-2140 (Monday-Friday 8:00-4:30)  
[www.columbuschemical.com](http://www.columbuschemical.com)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**Target Organs:** Respiratory system

**Signal Word:** Danger

**Pictograms:**



**GHS Classification:**

Corrosive to metals	Category 1
Skin corrosion	Category 1B
Serious eye damage	Category 1
Specific target organ toxicity - single exposure, Respiratory tract irritation	Category 3

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

**Hazard Statements:**

H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

**Precautionary Statements:**

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection /face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable and breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P321	Specific treatment (see Section 4 on the SDS).
P234	Keep only in original container.
P271	Use only outdoors or in a well-ventilated area.
P390	Absorb spillage to prevent material damage.
P403+P233+P405	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
P501	Dispose of contents container in accordance with local & regional regulations.

**Potential Health Effects**

<b>Eyes</b>	Causes eye burns.
<b>Inhalation</b>	Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
<b>Skin</b>	Causes skin burns. May be harmful if absorbed through skin.
<b>Ingestion</b>	Harmful if swallowed.

**NFPA Ratings**

<b>Health</b>	3
<b>Flammability</b>	0
<b>Reactivity</b>	0
<b>Specific hazard</b>	Not Available

**HMIS Ratings**

<b>Health</b>	3
<b>Fire</b>	0
<b>Reactivity</b>	0

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Titanium (III) Chloride	12-15	7705-07-9	231-728-9	TiCl <sub>3</sub>	154.23 g/mol
Hydrochloric Acid	5-10	7647-01-0	231-595-7	HCl	36.46 g/mol
Water	Balance	7732-18-5	231-791-2	H <sub>2</sub> O	18.00 g/mol

**4. FIRST-AID MEASURES**

<b>Eyes</b>	Rinse with plenty of water for at least 15 minutes and seek medical attention immediately.
<b>Inhalation</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
<b>Skin</b>	Immediately flush with plenty of cold water for at least 15 minutes while removing contaminated clothing and wash using soap. Wrap in wet bandages. Get medical attention immediately.

<b>Ingestion</b>	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.
<b>Other</b>	Show safety data sheet to doctor when seeking medical attention.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable (and unsuitable) extinguishing media</b>	Dry powder
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
<b>Specific hazards arising from the chemical</b>	Not available

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures</b>	Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray. See section 8 for recommendations on the use of personal protective equipment. Remove the employees that are not involved from the spill area and call the emergency team.
<b>Environmental precautions</b>	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Neutralize spill with soda ash or suitable material. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray. See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

### Conditions for safe storage, including any incompatibilities

Store in cool, dry well-ventilated area away from bases, heat and combustibles. Never allow product to get in contact with water during storage. Handle and open container with care. Keep away from incompatible materials (see section 10 for incompatibilities).

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Hydrochloric Acid	2 ppm (2.98 mg/m <sup>3</sup> )	CEIL	ACGIH® TLV®
	5 ppm (7 mg/m <sup>3</sup> )	CEIL	OSHA PELs
	5 ppm (7 mg/m <sup>3</sup> )	CEIL	NIOSH RELs

TWA: Time Weighted Average over 8 hours of work.  
 TLV: Threshold Limit Value over 8 hours of work.  
 REL: Recommended Exposure Limit  
 PEL: Permissible Exposure Limit  
 STEL: Short Term Exposure Limit usually 15 minutes.  
 IDLH: Immediately Dangerous to Life or Health  
 WEEL: Workplace Environmental Exposure Levels  
 CEIL: Ceiling

### Personal Protection

<b>Eyes</b>	Wear chemical safety glasses or goggles, and face shield.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Wear nitrile or rubber gloves, and acid resistant coveralls. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
<b>Other</b>	Handle in accordance with good industrial hygiene and safety practice.

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Liquid
Odor	Not Available
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash point	Not Available
Evaporation rate	Not Available
Flammability (solid, gas)	Not Available
Upper/lower flammability or explosive limit	Not Available
Vapor pressure	Not Available
Vapor density	Not Available
Density	1.3340
Solubility (ies)	Not Available
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	Strong bases, organics, combustible, and reactive metals. May react violently with water.
<b>Conditions to Avoid</b>	Exposure to moisture
<b>Incompatible Materials</b>	Keep away from water. Bases, alkali metals, Strong oxidizing agents, Metals, Amines, permanganates, e.g., potassium permanganate, Fluorine, reacts violently with water, hexalithium disilicide.
<b>Hazardous Decomposition Products</b>	Fumes of hydrogen chloride, titanium oxides and also hydrogen in presence of reactive metals.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

<b>Skin</b>	Not Available
<b>Eyes</b>	Not Available
<b>Respiratory</b>	Not Available
<b>Ingestion</b>	Not Available

### Carcinogenicity

<b>IARC</b>	3 - Group 3: Unclassifiable as to Carcinogenicity on Humans (hydrogen chloride)
<b>ACGIH</b>	A4 – Not Classifiable as a Human Carcinogen (Hydrogen chloride)
<b>NTP</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
<b>OSHA</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Signs & Symptoms of Exposure

<b>Skin</b>	Burning, redness, itching, inflammation and/or swelling of exposed tissues.
<b>Eyes</b>	Eye burns, watering eyes.
<b>Respiratory</b>	Burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache or nausea.
<b>Ingestion</b>	Burns of the mouth, gullet and gastrointestinal tract. Burning, choking, nausea, vomiting, severe pain.

<b>Chronic Toxicity</b>	Not Available
<b>Teratogenicity</b>	Not Available
<b>Mutagenicity</b>	Not Available
<b>Embryotoxicity</b>	Not Available
<b>Specific Target Organ Toxicity</b>	Not Available
<b>Reproductive Toxicity</b>	Not Available
<b>Respiratory/Skin Sensitization</b>	Not Available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

<b>Aquatic Vertebrate</b>	Not Available
<b>Aquatic Invertebrate</b>	Not Available
<b>Terrestrial</b>	Not Available

<b>Persistence and Degradability</b>	Not Available
<b>Bioaccumulative Potential</b>	Not Available
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

## 13. DISPOSAL CONSIDERATIONS

<b>Waste Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container or residue.
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<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.
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The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

## 14. TRANSPORTATION INFORMATION

US DOT	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid, Titanium trichloride) 8, PGII
TDG	UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, TITANIUM TRICHLORIDE) 8, PGII
IMDG	UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, TITANIUM TRICHLORIDE) 8, PGII
Marine Pollutant	No
IATA/ICAO	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid, Titanium trichloride) 8, PGII

## 15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Not Listed
Massachusetts: Toxic or Hazardous Substance List	Listed: Hydrochloric acid
Pennsylvania: Hazardous Substance List	Listed: Hydrochloric acid
New Jersey: Right to Know Hazardous Substance List	Listed: Hydrogen chloride, Titanium trichloride
Rhode Island: Hazardous Substance List	Listed: Hydrochloric acid
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Reactive Hazard, Acute Health Hazard, Chronic Health Hazard.
SARA 312	Reactive Hazard, Acute Health Hazard, Chronic Health Hazard.
SARA 313	Listed: Hydrochloric acid (aerosol only)
WHMIS Canada	Class D1A - Poisonous and infectious material – Immediate and serious effects – Very Toxic Class E - Corrosive material

## 16. OTHER INFORMATION

Revision	Date
Created on	11/04/2021

Disclaimer: The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.