# Safety Data Sheet

# Titanium Chloride (III) 12%

## 1. PRODUCT AND COMPANY IDENTIFICATION

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

**Synonyms/Generic Names:** None

**Product Number:** 5854

**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

**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:**

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

**Precautionary Statements:**

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| 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**

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

**NFPA Ratings**

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|---|---|
| **Health** | 3 |
| **Flammability** | 0 |
| **Reactivity** | 0 |
| **Specific hazard** | Not Available |

**HMIS Ratings**

| | |
|---|---|
| **Health** | 3 |
| **Fire** | 0 |
| **Reactivity** | 0 |

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | Weight % | CAS # | EINECS# / ELINCS# | Formula | Molecular Weight |
|---|---|---|---|---|---|
| Titanium (III) Chloride | 10-15 | 7705-07-9 | 231-728-9 | $TiCl_3$ | 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 | $H_2O$ | 18.00 g/mol |

## 4. FIRST-AID MEASURES

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|---|---|
| **Eyes** | Rinse with plenty of water for at least 15 minutes and seek medical attention immediately. |
| **Inhalation** | 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. |
| **Skin** | 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. |

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

## 5. FIRE-FIGHTING MEASURES

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

## 6. ACCIDENTAL RELEASE MEASURES

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|---|---|
| **Personal precautions, protective equipment and emergency procedures** | 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. |
| **Environmental precautions** | Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements. |
| **Methods and materials for containment and cleaning up** | 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$^3$) | CEIL | ACGIH® TLV® |
| | 5 ppm (7 mg/m$^3$) | CEIL | OSHA PELs |
| | 5 ppm (7 mg/m$^3$) | 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**

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|---|---|
| **Eyes** | Wear chemical safety glasses or goggles, and face shield. |
| **Inhalation** | Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator. |
| **Skin** | 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. |
| **Other** | 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

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|---|---|
| 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 | Not Available |
| Solubility (ies) | Not Available |
| Partition coefficient: n-octanol/water | Not Available |
| Auto-ignition temperature | Not Available |
| Decomposition temperature | Not Available |

## 10. STABILITY AND REACTIVITY

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

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity**

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|---|---|
| **Skin** | Not Available |
| **Eyes** | Not Available |
| **Respiratory** | Not Available |
| **Ingestion** | Not Available |

**Carcinogenicity**

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|---|---|
| **IARC** | 3 - Group 3: Unclassifiable as to Carcinogenicity on Humans (hydrogen chloride) |
| **ACGIH** | A4 – Not Classifiable as a Human Carcinogen (Hydrogen chloride) |
| **NTP** | 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. |
| **OSHA** | 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**

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

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|---|---|
| **Chronic Toxicity** | Not Available |
| **Teratogenicity** | Not Available |
| **Mutagenicity** | Not Available |
| **Embryotoxicity** | Not Available |
| **Specific Target Organ Toxicity** | Not Available |
| **Reproductive Toxicity** | Not Available |
| **Respiratory/Skin Sensitization** | Not Available |

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

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|---|---|
| **Aquatic Vertebrate** | Not Available |
| **Aquatic Invertebrate** | Not Available |
| **Terrestrial** | Not Available |

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|---|---|
| **Persistence and Degradability** | Not Available |
| **Bioaccumulative Potential** | Not Available |
| **Mobility in Soil** | Not Available |
| **PBT and vPvB Assessment** | Not Available |
| **Other Adverse Effects** | Not Available |

## 13. DISPOSAL CONSIDERATIONS

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| **Waste Residues** | 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. |

| | |
|---|---|
| **Product Containers** | 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. |

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

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|---|---|
| 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

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|---|---|
| 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<br>Class E - Corrosive material |

## 16. OTHER INFORMATION

| Revision | Date |
|---|---|
| Created on | 04/28/2021 |
| | |

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 RESPOSIBILITY 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.