Safety Data Sheet

Titanium (III) Chloride 30%

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Titanium (III) Chloride 30%

Synonyms/Generic Names: Titanium Trichloride

Product Number: 5853

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)

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

2. HAZARDS IDENTIFICATION

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	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:

P234	Keep only in original container.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection /face protection.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P406	Store in a corrosive resistant container with a resistant inner liner.
P501	Dispose of contents container in accordance with local & regional regulations.
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.

Potential Health Effects

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

NFPA Ratings

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	28-33%	7705-07-9	231-728-9	$TiCl_3$	154.23 g/mol
Hydrochloric Acid	6-12%	7647-01-0	231-595-7	HCl	36.46
Water	Balance	7732-18-5	231-791-2	H_2O	18.00 g/mol

4. FIRST-AID MEASURES

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 water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.
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.

5. FIRE-FIGHTING MEASURES

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

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
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. 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
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. 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
	5 ppm 7 mg/m^3	CEIL	OSHA
	5 ppm 7 mg/m^3	CEIL	NIOSH
	50 ppm	IDLH	OSHA

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 during x minutes.
IDLH: Immediately Dangerous to Life or Health
WEEL: Workplace Environmental Exposure Levels
CEIL: Ceiling

Personal Protection

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 full body covering. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other	Not Available

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	1.192 g/cm3 at 25° C (77 °F)
Solubility (ies)	Not Available
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Reacts 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	In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available
Ingestion	Not Available

Carcinogenicity

IARC	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrochloric acid).
ACGIH	Not Available.
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

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.

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

Aquatic Vertebrate	Toxicity to fish LC50 – Lepomis macrochirus (Bluegill) – 24.6 mg/L – 96H
Aquatic Invertebrate	Toxicity to daphnia and other aquatic invertebrates
	EC50 – Daphnia magna (water flea) – 4.91 mg/l – 4
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	May be harmful to aquatic organisms due to the shift of the pH. Do not empty into drains.

13. DISPOSAL CONSIDERATIONS

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

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	Not Listed
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	12/16/2019
Revised	07/22/2020