

## MSDS for Titanium (IV) Chloride, 99.9%

### \*\*\*\*MATERIAL SAFETY DATA SHEET\*\*\*\*

#### MSDS for Titanium (IV) Chloride, 99.9%

#### Section 1- Chemical product and Company Identification.

<b>MSDS Name</b>	Titanium (IV) Chloride 99.9%
<b>Catalog Number</b>	19723-00000, 197230050, 19723-1000
<b>Synonyms</b>	Titanium Tetrachloride

#### Company identification (Europe)

Acros Organics BVBA Janssen Pharmaceuticalan3a  
2440 Geel, Belgium Acros Organics

#### Company identification (USA)

One Reagent Lane Fairlawn, NJ 07410

For information in the US, call	800-ACROS-01
For information in the Europe, call	+32 14 57 52 11
Emergency Number Europe	+32 14 57 5299
Emergency Number US	201-796-7100
For CHEMTREC assistance call	800-424-9300
For International CHEMTREC assistance call	703-527-3887

#### Section 2-Composition, Information on ingredients

CAS#	Chemical name	%	EINECS	Haz	Symbols	Risk Phrases
7550-45-0	Titanium (IV) Chloride	99.9%	231-441-9			

Hazard Symbols: C  
Risk Phrases: 14 34

#### Section 3- hazards Identification

#### EMERGENCY OVER VIEW

Reacts violently with water, causes burn. Moisture sensitive

#### POTENTIAL HEALTH EFFECTS

**Eye:** causes eye burns, causes redness and pain.

**Skin:** causes skin burns, causes redness and pain.

**Ingestion:** causes gastrointestinal tract burns. May cause digestive tract irritation with abdominal pain, nausea and diarrhea

Effect may be delayed. May cause irritation of respiratory tract with burning pains in nose and throat, coughing, wheezing, shortness of breath, inhalation and pulmonary edema. Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

**Chronic** Not available

#### Section 4- First aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 150 minutes while removing contaminated clothing and shoes.

**Ingestion:** DO NOT induce vomiting, if conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Get medical aid. Remove from exposure and move to fresh air immediately. If not breathing, give artificial aspiration. If breathing is difficult, give oxygen.

#### Notes to Physician

#### Section 5 – Fire Fighting Measures

**General Information** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NOISH (approved or equivalent), and full protective gear. Substance is noncombustible.

**Extinguishing media** Use foam, dry chemical, or carbon dioxide. DO NOT USE WATER!

#### Section 6- Accidental release Measure

**General Information** Use proper personal protective equipment as indicated in Section 8.

**Spills/ Leaks** Absorb spill with inert material (e.g. vermiculite sand or earth), then place in suitable container. Do not expose spill to water.

#### Section 7- Handling and storage

**Handling:** Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on handling clothes use only in chemical fume hood. Keep from contact with moist air and steam.

**Storage:** Store in cool, dry place. Store in a tightly closed container. Corrosives area. Store under nitrogen.

#### Section 8- Exposure control, personal protection

#### ENGINEERING CONTROLS:

Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower. Use adequate ventilation to keep airborne concentration low.

## EXPOSURE LIMITS

**CAS# 7550-45-0:**  
**Russia: 1 mg/m<sup>3</sup> TWA**

## PERSONAL PROTECTION EQUIPMENT

**Eyes:** Wear chemical goggles.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or respirator European Standard EN 149.  
Always use a NIOSH or European Standards EN 149 approved respirator when necessary.

## Section 9- Physical and chemical properties

<b>Physical state:</b>	Clear liquid
<b>Color:</b>	Light yellow
<b>Odor:</b>	Penetrating odor
<b>PH:</b>	Not available
<b>Vapor pressure:</b>	12 hpa @ 20 deg C°
<b>Viscosity:</b>	0.08mPas 20 deg C°
<b>Boiling Point:</b>	136.5 deg C° @760.00 m Hg
<b>Freezing/Melting Point:</b>	24 deg C°
<b>Auto ignition Temperature:</b>	Not available
<b>Flash Point:</b>	Not available
<b>Explosion Limits, lower:</b>	Not available
<b>Explosion Limits, upper:</b>	Not available

## Decomposition temperature

### Solubility in water

Reacts

### Specific gravity/Density

1.7260/cm<sup>3</sup>

### Molecular Formula

TiCl<sub>4</sub>

### Molecular Weight

189.71

## Section 10- stability and reactivity

### Chemical Stability

Stable under normal temperature and pressure.

### Conditions to avoid

Incompatible materials, contact with water, moist and air.

### Incompatibilities with other materials

Water, strong oxidizing agents, alcohols.

### Hazardous Decomposition Products

Hydrogen Chloride, titanium/ titanium oxides

### Hazardous Polymerization

Will not occur.

### RTECS#

CAS# 7550-45-0: XR1925000, CAS# 7550-450-0: Inhalation,  
mouse: LC50=100 mg/m<sup>3</sup>/2H; Inhalation, LD50/LC5  
rat: LC50= 400mg/ m<sup>3</sup>. Skin, rabbit: LD50=3610 mg/kg

SKIN, RABBIT: LD0= 1000 MH\G/KG ORAL, rat: LD100= 464  
mg/kg INHALATION, RAT: LD50=0.46 MG/L/4H

**Carcinogenicity Titanium (IV) chloride:** Not listed by ACGIH, IARC, or NPT.

### Other:

See actual entry in RTECS for complete information.

## Section 12 Ecological information

**Ecotoxicity Algae:** EC50: 8.5 mg/l; 72 h;

### Section 1- Disposal Considerations

regulations.

Dispose in a manner consistent with federal state and local

## Section 12- Transport information

IATA

IMO

RID/ADR

**TITANIUM TETRACHLORIDE****Shipping** (Forbidden to ship via passenger or cargo air)**Name** TITANIUM TETRACHLORIDE**Class** 8**UN Number** 1838**Packing Group** II**USA RQ; CAS# 7550-455-0: 1000lb final RQ; 454 kg final RQ****Section 15- Regulatory Information****European/International Regulations**

European Labeling in According with EC directives

**Hazard Symbols:** C**Risk Phrases:** R 14 Reacts violently with water. R34 causes burns.**Safety Phrases:****S 7/8:** keep container tightly closed and dry.**S 26:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.**S36/37/39:** Wear suitable protective clothing, and eye/face protection.**S 15** In case of accident or if feel unwell, seek medical advice immediately (show the label where possible).**WCK( water Danger/Protection)****CAS# 7550-45-0: 1****Canada:**

CAS 7550-45-0 is listed on Canada's DSL list.

CAS 7550-45-0 is listed on Canada's Ingredients Disclosure list.

**US FEDERAL TSCA** CAS 7550-45-0 is listed on the TSCA inventory.**Section 1- Additional Information**



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**MSDS Creation Date 7/16/1996**

**Revision on #3 date 4/08/2003**

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