

Revision Date 03-May-2012

Revision Number 2

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Description:

Titanium(III) fluoride

Cat No.

384520000; 384520010; 384520050

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use

Laboratory chemicals

Uses advised against

No Information available

Details of the supplier of the safety data sheet

Company

Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

E-mail address

begel.sdsdesk@thermofisher.com

Emergency Telephone Number

For information in the US, call: 001-800-ACROS-01

For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99

Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300

CHEMTREC Phone Number, Europe: 001-703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Skin Corrosion/irritation

Category 1 B

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

Symbol(s)

C - Corrosive

R-phrases(s)

R14 - Reacts violently with water

R32 - Contact with acids liberates very toxic gas

R34 - Causes burns

Label Elements

Titanium(III) fluoride

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SECTION 2. HAZARDS IDENTIFICATION



Signal Word

Danger

Hazard Statements

H314 - Causes severe skin burns and eye damage

EUH014 - Reacts violently with water

EUH032 - Contact with acids liberates very toxic gas

Precautionary Statements - EU (§28, 1272/2008)

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P280 - Wear eye protection/ face protection

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

P233 - Keep container tightly closed

P402 + P404 - Store in a dry place. Store in a closed container

Other Hazards

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
Titanium fluoride (TiF ₃) 13470-08-1	EEC No. 236-732-4	98	13470-08-1	R14 R32 C; R34	Skin Corr. 1B (H314) (EUH014) (EUH032)	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

SECTION 4. FIRST AID MEASURES

Description of first aid measures

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SECTION 4. FIRST AID MEASURES

Eye Contact	Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician immediately.
Inhalation	Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediate medical attention is required.
Notes to Physician	Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES**Extinguishing media****Suitable Extinguishing Media**

Dry chemical. approved class D extinguishers. clay. sodium carbonate.

Extinguishing media which must not be used for safety reasons

Water.

Special hazards arising from the substance or mixture

Contact with water liberates toxic gas. Water reactive. Produce flammable gases on contact with water.

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Do not expose spill to water. Do not let this chemical enter the environment.

SECTION 7. HANDLING AND STORAGE**Precautions for Safe Handling**

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Do not breathe dust. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Do not ingest. Use only in area provided with appropriate exhaust ventilation. Do not allow contact with water. Keep under nitrogen.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from acids. Protect from moisture. Corrosives area.

Specific End Uses

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Component

Titanium fluoride (TiF₃)

European Union	The United Kingdom	France	Belgium	Spain
	STEL: 7.5 mg/m ³ 15 min TWA: 2.5 mg/m ³ 8 hr	VME: 2.5 mg/m ³ 8 heures. indicative limit		VLA-ED: 2.5 mg/m ³ 8 horas

Component

Titanium fluoride (TiF₃)

Italy	Germany	Portugal	The Netherlands	Finland
	TWA: 1 mg/m ³ 8 Stunden. F inhalable fraction exposure factor 4	TWA: 2.5 mg/m ³ 8 horas		

Component

Titanium fluoride (TiF₃)

Austria	Denmark	Switzerland	Poland	Norway
				TWA: 0.6 mg/m ³ 8 timer

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL)

No information available.

Predicted No Effect Concentration (PNEC)

No information available.

Exposure controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas Ensure that eyewash stations and safety showers are close to the workstation location

Personal protective equipment

Eye Protection

Goggles

Hand Protection

Protective gloves

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No information available.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Powder, Solid
Appearance	Red brown
pH	No information available.
Boiling Point/Range	1400°C / 2552°F@ 760 mmHg
Melting Point/Range	1200°C / 2192°F
Flash Point	No information available.
Autoignition Temperature	No information available.
Water Solubility	hydrolyses
Molecular Formula	F3 Ti
Molecular Weight	104.9

SECTION 10. STABILITY AND REACTIVITYReactivityChemical Stability

Stable under normal conditions. Moisture sensitive.

Possibility of Hazardous Reactions

Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	No information available.

Conditions to Avoid

Incompatible products.

Incompatible Materials

Acids, Strong oxidizing agents, Powdered metals.

Hazardous Decomposition Products

Gaseous hydrogen fluoride (HF).

SECTION 11. TOXICOLOGICAL INFORMATIONInformation on Toxicological EffectsAcute Toxicity

Product Information	No acute toxicity information is available for this product
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Component Information

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SECTION 11. TOXICOLOGICAL INFORMATION

Chronic Toxicity

Carcinogenicity

There are no known carcinogenic chemicals in this product

Sensitization

No information available.

Mutagenic Effects

No information available

Reproductive Effects

No information available.

Developmental Effects

No information available.

Target Organs

No information available.

Other Adverse Effects

The toxicological properties have not been fully investigated.

Endocrine Disruptor Information

None known

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects

Do not empty into drains

Persistence and degradability

No information available

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

Other adverse effects

No information available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues / Unused Products

Dispose of in accordance with local regulations

Contaminated Packaging

Empty containers should be taken to local recyclers for disposal

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SECTION 14. TRANSPORT INFORMATION

IMDG/IMO

UN-No 3260
Hazard Class 8
Packing Group II
Proper Shipping Name CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

ADR

UN-No 3260
Hazard Class 8
Packing Group II
Proper Shipping Name CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

IATA

UN-No 3260
Hazard Class 8
Packing Group II
Proper Shipping Name CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.*

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Titanium fluoride (TiF ₃)	236-732-4	-		X	-	X	-	-	-	-	X

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

AICS - Inventory of Chemical Substances

KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment

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SECTION 16. OTHER INFORMATION**Full text of R-phrases referred to under sections 2 and 3**

R14 - Reacts violently with water

R32 - Contact with acids liberates very toxic gas

R34 - Causes burns

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Revision Summary

Reason for revision Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet