

Revision Date 08-Nov-2010

Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Identifier

**Product Description:** Ytterbium(III) fluoride  
**Cat No.** 316160000; 316160100  
**Synonyms** Ytterbium fluoride.

### 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: 800-ACROS-01  
 For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99

Emergency Number, US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

CHEMTREC Phone Number, Europe: 703-527-3887

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

#### REGULATION (EC) No 1272/2008

Skin Corrosion / irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Specific target organ systemic toxicity (single exposure)	Category 3

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

For the full text of the R phrases mentioned in this Section, see Section 16

**Symbol(s)** Xi - Irritant  
**R -phrase(s)** none  
**Risk Combination Phrases** R36/37/38 - Irritating to eyes, respiratory system and skin

### Label Elements

## 2. HAZARDS IDENTIFICATION

**Signal Word****Warning****Hazard Statements**

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

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

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P302+ P352 - IF ON SKIN: Wash with plenty of soap and water

P280 - Wear protective gloves/protective clothing/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

**Other Hazards**

No information available.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC No.	Weight %	CAS-No	Classification	GHSCLAS	REACH Reg. No.
Ytterbium fluoride (YbF <sub>3</sub> ) 13760-80-0	EEC No. 237-354-2	99.9	13760-80-0	Xi; R36/37/38	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	-

For the full text of the R phrases mentioned in this Section, see Section 16

## 4. FIRST AID MEASURES

**Description of first aid measures****Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes Obtain medical attention

**Skin Contact**

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes Obtain medical attention

**Ingestion**

Clean mouth with water Get medical attention

**Inhalation**

Remove from exposure, lie down Move to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration Obtain medical attention

**Notes to Physician**

Treat symptomatically

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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

**Extinguishing media which must not be used for safety reasons**

No information available.

**Special hazards arising from the substance or mixture**

Non-combustible

**Advice for fire-fighters**

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

**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

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

Avoid contact with skin and eyes Do not breathe dust Do not breathe vapors or spray mist Use only in area provided with appropriate exhaust ventilation

**Conditions for safe storage, including any incompatibilities**

Keep in a dry, cool and well-ventilated place Keep container tightly closed

**Specific End Uses****8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Control parameters****Exposure limits****Component**Ytterbium fluoride  
(YbF<sub>3</sub>)

European Union	The United Kingdom	France	Belgium	Spain
		VME: 2.5 mg/m <sup>3</sup>		

**Component**Ytterbium fluoride  
(YbF<sub>3</sub>)

Italy	Portugal	The Netherlands	Finland	Denmark
	TWA: 2.5 mg/m <sup>3</sup>			

**Component**

Austria	Switzerland	Poland	Norway	Ireland
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Component	Austria	Switzerland	Poland	Norway	Ireland
Ytterbium fluoride (YbF <sub>3</sub> )				TWA: 0.6 mg/m <sup>3</sup>	

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

**Exposure controls**

**Engineering Measures**

**Personal protective equipment** Ensure adequate ventilation, especially in confined areas

**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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State**

Powder, Solid

**Appearance**

Off-white

**odor**

odorless

**pH**

No information available.

**Boiling Point/Range**

2200°C / 3992°F

**Melting Point/Range**

1157°C / 2114.6°F

**Flash Point**

No information available.

**Water Solubility**

Insoluble

**Molecular Formula**

F<sub>3</sub> Yb

**Molecular Weight**

230.04

## 10. STABILITY AND REACTIVITY

**Reactivity**

**Chemical Stability**

Hygroscopic.

**Possibility of Hazardous Reactions**

**Hazardous Polymerization**

No information available.

**Hazardous Reactions .**

No information available.

**Conditions to Avoid**

Incompatible products, Exposure to moist air or water.

**Incompatible Materials**

Acids, Strong reducing agents.

**Hazardous Decomposition Products**

Gaseous hydrogen fluoride (HF).

**11. TOXICOLOGICAL INFORMATION****Information on Toxicological Effects****Acute Toxicity**

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

**Component 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

**12. ECOLOGICAL INFORMATION****Toxicity****Ecotoxicity effects**

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants

**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

**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 for local recycling, recovery or waste disposal

**14. TRANSPORT INFORMATION****IMDG/IMO**

Not regulated

**14. TRANSPORT INFORMATION**

ADR Not regulated

IATA Not regulated

**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
Ytterbium fluoride (YbF <sub>3</sub> )	237-354-2	-		X	-	X	-	X	X	-	KE-35465 X

**Legend**

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

**EINECS/ELINCS** - European Inventory Lists

**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****16. OTHER INFORMATION****Text of R phrases mentioned in Section 2-3**

R36/37/38 - Irritating to eyes, respiratory system and skin

**Revision Date** 08-Nov-2010

**Revision Summary** Not applicable

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

**Disclaimer**

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End of Safety Data Sheet