

Revision Date 07-Mar-2012

Revision Number 3

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

Product Identifier

Product Description:

Bismuth(III) fluoride

Cat No.

311010000; 311010250; 311011000

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 |
| Serious Eye Damage/Eye Irritation | Category 1 |

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)

R34 - Causes burns

Label Elements

Bismuth(III) fluoride

Revision Date 07-Mar-2012

SECTION 2. HAZARDS IDENTIFICATION



Signal Word

Danger

Hazard Statements

H314 - Causes severe skin burns and eye damage

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

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. |
|-------------------------------------|-------------------|----------|-----------|---------------------------|---|-----------|
| Bismuthine, trifluoro- 7787-61-3 | EEC No. 232-124-8 | 98 | 7787-61-3 | C; R34 | Skin Corr. 1B (H314) | - |

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

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.



Bismuth(III) fluoride

Revision Date 07-Mar-2012

| | |
|---------------------------|--|
| 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

Carbon dioxide (CO₂). Dry chemical. chemical foam.

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

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 let this chemical enter the environment.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

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.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Corrosives area. Keep under nitrogen.

Bismuth(III) fluoride

Revision Date 07-Mar-2012

Specific End Uses

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Component

Bismuthine, trifluoro-

| 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

Bismuthine, trifluoro-

| 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State

Solid

Appearance

White

pH

No information available.

Vapor Pressure

No information available.

Vapor Density

No information available.

Boiling Point/Range

No information available.

Melting Point/Range

727°C / 1340.6°F

Flash Point

No information available.

Autoignition Temperature

No information available.

Bismuth(III) fluoride

Revision Date 07-Mar-2012

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-------------------|-------------------|
| Water Solubility | Insoluble |
| Molecular Formula | Bi F ₃ |
| Molecular Weight | 265.98 |

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Chemical 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, Exposure to moist air or water.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

Gaseous hydrogen fluoride (HF).

SECTION 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. |

Bismuth(III) fluoride

Revision Date 07-Mar-2012

SECTION 11. TOXICOLOGICAL INFORMATION

| | |
|--|--|
| 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

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. |

Bismuth(III) fluoride

Revision Date 07-Mar-2012

SECTION 14. TRANSPORT INFORMATION

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 |
|------------------------|-----------|--------|-----|------|-----|------|-------|------|-------|------|------|
| Bismuthine, trifluoro- | 232-124-8 | - | | X | - | X | - | 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

SECTION 16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R34 - Causes burns

Bismuth(III) fluoride**Revision Date** 07-Mar-2012**SECTION 16. OTHER INFORMATION****Revision Date** 07-Mar-2012**Revision Summary** 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