Bis(2-methoxyethyl)aminosulfur trifluoride (cas 202289-38-1) MSDS

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

Product name : Deoxo-Fluor® solution

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Highly flammable. Toxic by inhalation and if swallowed. Causes severe burns. Harmful: may cause lung damage if swallowed. Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Possible risk of harm to the unborn child. Reacts violently with water. Contact with water liberates toxic gas.

Label elements

Hazard symbol(s)
- F Highly flammable
- T Toxic

R-phrase(s)
- R11 Highly flammable.
- R14 Reacts violently with water.
- R23/25 Toxic by inhalation and if swallowed.
- R29 Contact with water liberates toxic gas.
- R35 Causes severe burns.
- R45/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- R65 Possible risk of harm to the unborn child.
- R66 Harmful: may cause lung damage if swallowed.

S-phrase(s)
- S16 Keep away from sources of ignition - No smoking.
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Bis(2-methoxyethyl)aminosulfur trifluoridesolution

Formula : C6H14F3NO2S

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>202289-38-1</td>
<td>-</td>
<td>Water-react 2; Acute Tox. 3;</td>
<td>50 %</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin Corr. 1A; H261, H301, H314, H331, EUH014, EUH029</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>T, R14 - R23/25 - R29 - R35</td>
<td></td>
</tr>
<tr>
<td>toluene</td>
<td>108-88-3</td>
<td>203-625-9</td>
<td>Flam. Liq. 2; Repr. 2; Asp.</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact
Wash off with soap and plenty of water.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Avoid breathing vapors, mist or gas.

Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Normal measures for preventive fire protection.

Conditions for safe storage
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: 2 - 8 °C
Store under inert gas. Moisture sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection
Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Eye protection
Use equipment for eye protection tested and approved under appropriate government standards such as
Skin and body protection
Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
General industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
- Form: clear, liquid
- Colour: dark yellow

Safety data
- pH: no data available
- Melting point: no data available
- Boiling point: no data available
- Flash point: < 10 °C - closed cup
- Ignition temperature: no data available
- Lower explosion limit: no data available
- Upper explosion limit: no data available
- Water solubility: no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Conditions to avoid
Do not allow water to enter container because of violent reaction.

Materials to avoid
Sulfides

Hazardous decomposition products
Reacts with water to form: - Warning: Hydrolyzes to form hydrofluoric acid! Do not store in glass!
Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Hydrogen fluoride

11. TOXICOLOGICAL INFORMATION

Acute toxicity
no data available

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
Eyes: no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Toluene)
Reproductive toxicity
no data available

Specific target organ toxicity - single exposure
no data available

Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard
no data available

Potential health effects

<table>
<thead>
<tr>
<th>Mode of Exposure</th>
<th>Potential Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>May be harmful if inhaled. May cause respiratory tract irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed.</td>
</tr>
<tr>
<td>Skin</td>
<td>May be harmful if absorbed through skin. May cause skin irritation.</td>
</tr>
<tr>
<td>Eyes</td>
<td>May cause eye irritation.</td>
</tr>
</tbody>
</table>

Signs and Symptoms of Exposure
Lung irritation, chest pain, pulmonary edema

Additional Information
RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID
UN-Number: 3286 Class: 3 (6.1, 8) Packing group: II
Proper shipping name: FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.

IMDG
UN-Number: 3286 Class: 3 (6.1, 8) Packing group: II
Proper shipping name: FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.
Marine pollutant: No

IATA
UN-Number: 3286 Class: 3 (6.1, 8) Packing group: II
Proper shipping name: Flammable liquid, toxic, corrosive, n.o.s.

15. REGULATORY INFORMATION
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16. OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 3

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox.</td>
<td>Acute toxicity</td>
</tr>
<tr>
<td>Asp. Tox.</td>
<td>Aspiration hazard</td>
</tr>
<tr>
<td>EUH014</td>
<td>Reacts violently with water.</td>
</tr>
<tr>
<td>EUH029</td>
<td>Contact with water liberates toxic gas.</td>
</tr>
<tr>
<td>Flam. Liq.</td>
<td>Flammable liquids</td>
</tr>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>H261</td>
<td>In contact with water releases flammable gases.</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed.</td>
</tr>
<tr>
<td>H304</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled.</td>
</tr>
<tr>
<td>H366</td>
<td>May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>H361d</td>
<td>Suspected of damaging the unborn child.</td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>Repr.</td>
<td>Reproductive toxicity</td>
</tr>
<tr>
<td>Skin Corr.</td>
<td>Skin corrosion</td>
</tr>
<tr>
<td>Skin Irrit.</td>
<td>Skin irritation</td>
</tr>
<tr>
<td>STOT RE</td>
<td>Specific target organ toxicity - repeated exposure</td>
</tr>
<tr>
<td>STOT SE</td>
<td>Specific target organ toxicity - single exposure</td>
</tr>
<tr>
<td>Water-react</td>
<td>Substances, which in contact with water, emit flammable gases</td>
</tr>
<tr>
<td>R11</td>
<td>Highly flammable.</td>
</tr>
<tr>
<td>R14</td>
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<td>R29</td>
<td>Contact with water liberates toxic gas.</td>
</tr>
<tr>
<td>R35</td>
<td>Causes severe burns.</td>
</tr>
<tr>
<td>R38</td>
<td>Irritating to skin.</td>
</tr>
<tr>
<td>R48/20</td>
<td>Harmful: danger of serious damage to health by prolonged exposure through inhalation.</td>
</tr>
<tr>
<td>R63</td>
<td>Possible risk of harm to the unborn child.</td>
</tr>
<tr>
<td>R65</td>
<td>Harmful: may cause lung damage if swallowed.</td>
</tr>
<tr>
<td>R67</td>
<td>Vapours may cause drowsiness and dizziness.</td>
</tr>
<tr>
<td>Repr.Cat.3</td>
<td>Toxic to Reproduction Category 3</td>
</tr>
<tr>
<td>Xn</td>
<td>Harmful</td>
</tr>
</tbody>
</table>

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information this document is based on the resent state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. guidechem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.