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

1.1 Product identifiers

Product name: 9,9-bis(methoxymethyl)-9H-fluorene

Product Number: SB01101
Brand: Chemsoon
CAS-No.: 182121-12-6

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

Identified uses: Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Chemsoon Co., Ltd.
Address: Floor 4, Building 11 Jia, 528#, Ruiqing Road, 201201 SHANGHAI, CHINA
Telephone: 86-21-60518990
Fax: 86-21-33321556
E-mail address: info@chemsoon.com

1.4 Emergency telephone number

Emergency Phone #: 

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
- Flammable solids (Category 1)
- Skin irritation (Category 2)
- Eye irritation (Category 2)
- Acute aquatic toxicity (Category 1)
- Chronic aquatic toxicity (Category 1)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Irritating to eyes and skin. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram

Signal word: Danger
Hazard statement(s):
- H228 Flammable solid.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):
- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P273 Avoid release to the environment.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P501 Dispose of contents/ container to an approved waste disposal plant.

Hazard symbol(s)

R-phrase(s)
R36/38 Irritating to eyes and skin.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

2.3 Other hazards
Lachrymator.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures
Synonyms : 9,9-bis(methoxymethyl)-9H-fluorene

Formula : C17H18O2
Molecular Weight : 254.32 g/mol

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>9,9-bis(methoxymethyl)-9H-fluorene</td>
<td>H315 N, R36/38</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Index-No.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

4. FIRST AID MEASURES

4.1 Description of first aid measures
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

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

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed
no data available
5. FIREFIGHTING MEASURES
5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Sulphur oxides

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES
6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up
Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE
7.1 Precautions for safe handling
Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition. No smoking. Take measures to prevent the build up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)
no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1 Control parameters
Components with workplace control parameters
8.2 Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment
Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin 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.

**Body Protection**
Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tr>
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</tr>
<tr>
<td>pH</td>
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<td>Melting/freezing point</td>
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<tr>
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</tr>
<tr>
<td>Flash point</td>
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</tr>
<tr>
<td>Evaporation rate</td>
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</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>The substance or mixture is a flammable solid with the category 1.</td>
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<tr>
<td>Upper/lower flammability or explosive limits</td>
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<tr>
<td>Vapour pressure</td>
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<tr>
<td>Vapour density</td>
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<tr>
<td>Relative density</td>
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</tr>
</tbody>
</table>

**9.2 Other safety information**
no data available

**10. STABILITY AND REACTIVITY**

**10.1 Reactivity**
no data available

**10.2 Chemical stability**
no data available

**10.3 Possibility of hazardous reactions**
no data available

**10.4 Conditions to avoid**
Heat, flames and sparks. Extremes of temperature and direct sunlight.

**10.5 Incompatible materials**
Oxidizing agents, Strong oxidizing agents, Metals, Amines, Strong acids, Acid chlorides, Alcohols, Peroxides, permanganates, e.g. potassium permanganate, Strong reducing agents, Soluble carbonates and phosphates, Phosphorus halides, Hydroxides

**10.6 Hazardous decomposition products**
Other decomposition products - no data available

**11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

**Acute toxicity**
no data available

**Skin corrosion/irritation**
Potential health effects

Inhalation
May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion
May be harmful if swallowed. Causes burns. Skin may be harmful if absorbed through skin.

Eyes
Causes eye burns.

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information
RTECS: Not available

12. ECOLOGICAL INFORMATION

12.1 Toxicity
no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment
no data available

12.6 Other adverse effects
Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number
ADR/RID: 3175 IMDG: 3175 IATA: 3175

14.2 UN proper shipping name
ADR/RID: SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S.
14.3 Transport hazard class(es)  
ADR/RID: 4.1 IMDG: 4.1 IATA: 4.1  
14.4 Packaging group  
ADR/RID: II IMDG: II IATA: II  
14.5 Environmental hazards  
ADR/RID: no IMDG Marine Pollutant: no IATA: no  
14.6 Special precautions for user  
no data available  

15. REGULATORY INFORMATION  
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.  
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
no data available  
15.2 Chemical Safety Assessment  
no data available  

16. OTHER INFORMATION  
Text of H-code(s) and R-phrase(s) mentioned in Section 3  
Aquatic Acute Acute aquatic toxicity  
Aquatic Chronic Chronic aquatic toxicity  
Flam. Liq. Flammable liquids  
H226 Flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.  
H410 Very toxic to aquatic life with long lasting effects.  
Skin Corr. Skin corrosion  
C Corrosive  
R10 Flammable.  
R35 Causes severe burns.  
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
N Dangerous for the environment  

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 in this document is based on the present 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. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.chemsoon.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.