MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
CAS-No. : 1149-16-2
Product code : 03990

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

1.2.1. Relevant identified uses
Industrial/Professional use spec : Industrial
For professional use only

1.2.2. Uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT. LTD.
107 Wode House Road, Jehangir Villa, Colaba
400005 Mumbai - INDIA
T +91 22 6663 6663 - F +91 22 6663 6699
info@lobachemie.com - www.lobachemie.com

1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Skin corrosion/irritation, Category 2, H315
Serious eye damage/eye irritation, Category 2, H319
Specific target organ toxicity — Single exposure, Category 3, H335
Respiratory tract irritation

Full text of H statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
Xn; R22
Full text of R-phrases: see section 16
Adverse physicochemical, human health and environmental effects
No additional information available

2.2. Label elements

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

Hazard pictograms (CLP): GHS07

Signal word (CLP): Warning

Hazard statements (CLP):
- H315 - Causes skin irritation.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.

Precautionary statements (CLP):
- P261 - Avoid breathing vapours, gas, fume, spray, dust.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name: GLYOXAL BIS-(2-HYDROXYANIL) AR
CAS-No.: 1149-16-2

Full text of R- and H-statements: see section 16

3.2. Mixtures
Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.

First-aid measures after skin contact: Gently wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation: May cause respiratory irritation.
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### Symptoms/effects after skin contact
Causes skin irritation.

### Symptoms/effects after eye contact
Causes serious eye irritation.

### 4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

| Unsuitable extinguishing media | Do not use a heavy water stream. |

#### 5.2. Special hazards arising from the substance or mixture
No additional information available

#### 5.3. Advice for firefighters

| Protection during firefighting | Do not enter fire area without proper protective equipment, including respiratory protection. |

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

| Emergency procedures | Evacuate unnecessary personnel. |

##### 6.1.2. For emergency responders

| Protective equipment | Use personal protective equipment as required. |
| Emergency procedures | Ventilate area. |

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

| Methods for cleaning up | Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. |

#### 6.4. Reference to other sections
No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

| Precautions for safe handling | Avoid contact with skin and eyes. Do not breathe vapours. Provide good ventilation in process area to prevent formation of vapour. |
| Hygiene measures | Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. |

#### 7.2. Conditions for safe storage, including any incompatibilities

| Storage conditions | Store in a well-ventilated place. Keep container tightly closed. |

#### 7.3. Specific end use(s)
No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters
No additional information available
8.2. Exposure controls

Hand protection: Protective gloves
Eye protection: Chemical goggles or safety glasses
Skin and body protection: Wear suitable protective clothing
Respiratory protection: [In case of inadequate ventilation] wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Solid
Molecular mass: 240.26 g/mol
Colour: Buff coloured powder.
Odour: odourless.
Odour threshold: No data available
pH: No data available
Relative evaporation rate (butylacetate=1): No data available
Melting point: 194 - 196 °C
Freezing point: No data available
Boiling point: No data available
Flash point: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): No data available
Vapour pressure: No data available
Relative vapour density at 20 °C: No data available
Relative density: No data available
Solubility: No data available
Log Pow: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidising properties: No data available
Explosive limits: No data available

9.2. Other information

No additional information available
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### SECTION 10: Stability and reactivity

<table>
<thead>
<tr>
<th>10.1. Reactivity</th>
<th>No additional information available</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.2. Chemical stability</td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td>10.3. Possibility of hazardous reactions</td>
<td>No additional information available</td>
</tr>
<tr>
<td>10.4. Conditions to avoid</td>
<td>Direct sunlight. Extremely high or low temperatures.</td>
</tr>
<tr>
<td>10.5. Incompatible materials</td>
<td>No additional information available</td>
</tr>
<tr>
<td>10.6. Hazardous decomposition products</td>
<td>No additional information available</td>
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</tbody>
</table>

### SECTION 11: Toxicological information

<table>
<thead>
<tr>
<th>11.1. Information on toxicological effects</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>Not classified</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

### SECTION 12: Ecological information

<table>
<thead>
<tr>
<th>12.1. Toxicity</th>
<th>No additional information available</th>
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</thead>
<tbody>
<tr>
<td>12.2. Persistence and degradability</td>
<td>No additional information available</td>
</tr>
</tbody>
</table>
12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

12.5. Results of PBT and vPvB assessment
No additional information available

12.6. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product/Packaging disposal recommendations: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number
UN-No. (ADR): Not applicable
UN-No. (IMDG): Not applicable
UN-No. (IATA): Not applicable
UN-No. (ADN): Not applicable
UN-No. (RID): Not applicable

14.2. UN proper shipping name
Proper Shipping Name (ADR): Not applicable
Proper Shipping Name (IMDG): Not applicable
Proper Shipping Name (IATA): Not applicable
Proper Shipping Name (ADN): Not applicable
Proper Shipping Name (RID): Not applicable

14.3. Transport hazard class(es)
ADR
Transport hazard class(es) (ADR): Not applicable

IMDG
Transport hazard class(es) (IMDG): Not applicable

IATA
Transport hazard class(es) (IATA): Not applicable

ADN
Transport hazard class(es) (ADN): Not applicable

RID
Transport hazard class(es) (RID): Not applicable
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14.4. Packing group
- Packing group (ADR) : Not applicable
- Packing group (IMDG) : Not applicable
- Packing group (IATA) : Not applicable
- Packing group (ADN) : Not applicable
- Packing group (RID) : Not applicable

14.5. Environmental hazards
- Dangerous for the environment : No
- Marine pollutant : No
- Other information : No supplementary information available

14.6. Special precautions for user
- Overland transport
  No data available
- Transport by sea
  No data available
- Air transport
  No data available
- Inland waterway transport
  No data available
- Rail transport
  No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations
No REACH Annex XVII restrictions
GLYOXAL BIS-(2-HYDROXYANIL) AR is not on the REACH Candidate List
GLYOXAL BIS-(2-HYDROXYANIL) AR is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

Netherlands
SZW-lijst van kankerverwekkende stoffen : The substance is not listed
SZW-lijst van mutagene stoffen : The substance is not listed
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| NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding | The substance is not listed |
| NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid | The substance is not listed |
| NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling | The substance is not listed |

**Denmark**
Recommendations Danish Regulation: Young people below the age of 18 years are not allowed to use the product

**15.2. Chemical safety assessment**
No additional information available

**SECTION 16: Other information**

Full text of R-, H- and EUH-statements:

| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| R22 | Harmful if swallowed |
| Xn | Harmful |

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should therefore not be construed as guaranteeing any specific property of the product.*