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

1.1. Product identifier
Product form: Mixture
Product code: 04262

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]

- Flammable liquids, Category 3: H226
- Acute toxicity (oral), Category 4: H302
- Acute toxicity (dermal), Category 4: H312
- Acute toxicity (inhalation: vapour), Category 3: H331
- Skin corrosion/irritation, Category 2: H315
- Serious eye damage/eye irritation, Category 2: H319
- Skin sensitisation, Category 1: H317
- Reproductive toxicity, Category 1A: H360FD

Full text of H statements: 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):

- GHS02
- GHS06
- GHS08

Signal word (CLP): Danger

Hazardous ingredients: 2-Methoxyethanol; Sulphur dioxide; Iodine; 2,2'-iminoethanol

Hazard statements (CLP):
- H226 - Flammable liquid and vapour.
- H302+H312 - Harmful if swallowed or in contact with skin.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H331 - Toxic if inhaled.
- H360FD - May damage fertility. May damage the unborn child.

Precautionary statements (CLP):
- P201 - Obtain special instructions before use.
- P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 - Wash hands, forearms and face thoroughly after handling.
- 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.
- P310 - Immediately call a POISON CENTER or doctor.

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures
<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyethanol</td>
<td>(CAS-No.) 109-86-4 (EC-No.) 203-713-7 (EC Index-No.) 603-011-00-4</td>
<td>69</td>
<td>Repr. 1B, H360F Repr. 1B, H360D Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td>Iodine</td>
<td>(CAS-No.) 7553-56-2 (EC-No.) 231-442-4 (EC Index-No.) 053-001-00-3</td>
<td>13</td>
<td>Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Aquatic Acute 1, H400</td>
</tr>
<tr>
<td>2,2’-iminodiethanol</td>
<td>(CAS-No.) 111-42-2 (EC-No.) 203-868-0 (EC Index-No.) 603-071-00-1</td>
<td>11</td>
<td>Eye Dam. 1, H318 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 STOT RE 2, H373</td>
</tr>
<tr>
<td>Sulphur dioxide</td>
<td>(CAS-No.) 7446-09-5 (EC-No.) 231-195-2 (EC Index-No.) 016-011-00-9</td>
<td>7</td>
<td>Acute Tox. 3 (Inhalation), H331 Eye Dam. 1, H318 Press. Gas (Liq.), H280</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

**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.

First-aid measures after skin contact: Take off contaminated clothing and wash it before reuse. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

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

First-aid measures after ingestion: If you feel unwell, seek medical advice. Rinse mouth out with water.

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

Symptoms/effects: May damage the unborn child. May damage fertility.

Symptoms/effects after inhalation: Toxic if inhaled.

Symptoms/effects after skin contact: Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact: Causes serious eye damage.

Symptoms/effects after ingestion: Harmful if swallowed.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

Suitable extinguishing media: dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).

Unsuitable extinguishing media: Do not use a heavy water stream.
5.2. Special hazards arising from the substance or mixture

Fire hazard: Flammable liquid and vapour.
Explosion hazard: Heating may cause a fire or explosion.

5.3. Advice for firefighters

Protection during firefighting: Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Emergency procedures: Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders
Protective equipment: Use personal protective equipment as required.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Clean contaminated surfaces with an excess of water.

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, eyes and clothing.
Hygiene measures: Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a well-ventilated place. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

<table>
<thead>
<tr>
<th>Protection Type</th>
<th>Protection Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand protection</td>
<td>protective gloves</td>
</tr>
<tr>
<td>Eye protection</td>
<td>Chemical goggles or safety glasses</td>
</tr>
<tr>
<td>Skin and body protection</td>
<td>Wear suitable protective clothing</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>Approved supplied air respirator</td>
</tr>
</tbody>
</table>

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Reddish-brown liquid.</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>33 °C</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>285 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Flammable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>1.2 g/cm³</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
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<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
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<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available
10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No additional information available

10.4. Conditions to avoid

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE CLP (oral)</td>
<td>500 mg/kg bodyweight</td>
</tr>
<tr>
<td>ATE CLP (dermal)</td>
<td>1100 mg/kg bodyweight</td>
</tr>
<tr>
<td>ATE CLP (vapours)</td>
<td>3 mg/l/4h</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/irritation: Causes serious eye irritation.
Respiratory or skin sensitisation: May cause an allergic skin reaction.
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified

Reproductive toxicity: May damage fertility. May damage the unborn child.
STOT-single exposure: Not classified
STOT-repeated exposure: Not classified
Aspiration hazard: Not classified

Potential adverse human health effects and symptoms: Harmful if swallowed. Harmful in contact with skin.

SECTION 12: Ecological information

12.1. Toxicity
No additional information available
12.2. Persistence and degradability
No additional information available

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

<table>
<thead>
<tr>
<th>Component</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyethanol (109-86-4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII</td>
</tr>
<tr>
<td></td>
<td>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII</td>
</tr>
</tbody>
</table>

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) | 1188 |
| UN-No. (IMDG) | 1188 |
| UN-No. (IATA) | 1188 |
| UN-No. (ADN) | 1188 |
| UN-No. (RID) | 1188 |

14.2. UN proper shipping name

| Proper Shipping Name (ADR) | ETHYLENE GLYCOL MONOMETHYL ETHER |
| Proper Shipping Name (IMDG) | ETHYLENE GLYCOL MONOMETHYL ETHER |
| Proper Shipping Name (IATA) | Ethylene glycol monomethyl ether |
| Proper Shipping Name (ADN) | ETHYLENE GLYCOL MONOMETHYL ETHER |
| Proper Shipping Name (RID) | ETHYLENE GLYCOL MONOMETHYL ETHER |

Transport document description (ADR) | UN 1188 ETHYLENE GLYCOL MONOMETHYL ETHER, 3, III, (D/E) |
Transport document description (IMDG) | UN 1188 ETHYLENE GLYCOL MONOMETHYL ETHER, 3, III (38°C c.c.) |
Transport document description (IATA) | UN 1188 Ethylene glycol monomethyl ether, 3, III |
Transport document description (ADN) | UN 1188 ETHYLENE GLYCOL MONOMETHYL ETHER, 3, III |
Transport document description (RID) | UN 1188 ETHYLENE GLYCOL MONOMETHYL ETHER, 3, III |

14.3. Transport hazard class(es)

**ADR**

| Transport hazard class(es) (ADR) | 3 |
**Danger labels (ADR)**
: 3

**IMDG**
Transport hazard class(es) (IMDG) : 3
Danger labels (IMDG) : 3

**IATA**
Transport hazard class(es) (IATA) : 3
Hazard labels (IATA) : 3

**ADN**
Transport hazard class(es) (ADN) : 3
Danger labels (ADN) : 3

**RID**
Transport hazard class(es) (RID) : 3
Danger labels (RID) : 3

### 14.4. Packing group

Packing group (ADR) : III
Packing group (IMDG) : III
Packing group (IATA) : III
Packing group (ADN) : III
Packing group (RID) : III

### 14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
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Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport
Classification code (ADR) : F1
Limited quantities (ADR) : 5l
Excepted quantities (ADR) : E1
Packing instructions (ADR) : P001, IBC03, LP01, R001
Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T2
Portable tank and bulk container special provisions (ADR) : TP1
Tank code (ADR) : LGBF
Vehicle for tank carriage : FL
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Special provisions for carriage - Operation (ADR) : S2
Hazard identification number (Kemler No.) : 30
Orange plates : 30
1188
Tunnel restriction code (ADR) : D/E
EAC code : -2Y

- Transport by sea
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T2
Tank special provisions (IMDG) : TP1
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-D
Stowage category (IMDG) : A
Flash point (IMDG) : 38°C c.c.
MFAG-No : 127

- Air transport
PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y344
PCA limited quantity max net quantity (IATA) : 10L
PCA packing instructions (IATA) : 355
PCA max net quantity (IATA) : 60L
CAO packing instructions (IATA) : 366
CAO max net quantity (IATA) : 220L
ERG code (IATA) : 3L

- Inland waterway transport
Classification code (ADN) : F1
Limited quantities (ADN) : 5 L
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Safety Data Sheet

[Table]

- Rail transport

<table>
<thead>
<tr>
<th>Classification code (RID)</th>
<th>F1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited quantities (RID)</td>
<td>5L</td>
</tr>
<tr>
<td>Excepted quantities (RID)</td>
<td>E1</td>
</tr>
<tr>
<td>Packing instructions (RID)</td>
<td>P001, IBC03, LP01, R001</td>
</tr>
<tr>
<td>Mixed packing provisions (RID)</td>
<td>MP19</td>
</tr>
<tr>
<td>Portable tank and bulk container instructions (RID)</td>
<td>T2</td>
</tr>
<tr>
<td>Portable tank and bulk container special provisions (RID)</td>
<td>TP1</td>
</tr>
<tr>
<td>Tank codes for RID tanks (RID)</td>
<td>LGBF</td>
</tr>
<tr>
<td>Transport category (RID)</td>
<td>3</td>
</tr>
<tr>
<td>Special provisions for carriage – Packages (RID)</td>
<td>W12</td>
</tr>
<tr>
<td>Colis express (express parcels) (RID)</td>
<td>CE4</td>
</tr>
<tr>
<td>Hazard identification number (RID)</td>
<td>30</td>
</tr>
</tbody>
</table>

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

Contains no REACH substances with Annex XVII restrictions
Contains a substance on the REACH candidate list in concentration ≥ 0.1% or with a lower specific limit: 2-Methoxyethanol (EC 203-713-7, CAS 109-86-4)

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany
Reference to AwSV : Water hazard class (WGK) 2, Significantly hazardous to water (Classification according to AwSV, Annex 1)

Netherlands
SZW-lijst van kankerverwekkende stoffen : 2-Methoxyethanol, 2,2'-iminodiethanol are listed
SZW-lijst van mutagene stoffen : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed
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NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbareheid: 2-Methoxyethanol is listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling: 2-Methoxyethanol is listed

Denmark
Class for fire hazard: Class II-1
Store unit: 5 liter
Classification remarks: R10 <H226;H302+H312;H315;H317;H331;H360FD>; Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation: Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment
No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

<table>
<thead>
<tr>
<th>Acute Tox. 3 (Inhalation)</th>
<th>Acute toxicity (inhal.), Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 3 (Inhalation:vapour)</td>
<td>Acute toxicity (inhalation:vapour) Category 3</td>
</tr>
<tr>
<td>Acute Tox. 4 (Dermal)</td>
<td>Acute toxicity (dermal), Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Inhalation)</td>
<td>Acute toxicity (inhal.), Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Oral)</td>
<td>Acute toxicity (oral), Category 4</td>
</tr>
<tr>
<td>Aquatic Acute 1</td>
<td>Hazardous to the aquatic environment — Acute Hazard, Category 1</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation, Category 1</td>
</tr>
<tr>
<td>Eye Irrit. 2</td>
<td>Serious eye damage/eye irritation, Category 2</td>
</tr>
<tr>
<td>Flam. Liq. 3</td>
<td>Flammable liquids, Category 3</td>
</tr>
<tr>
<td>Press. Gas (Liq.)</td>
<td>Gases under pressure: Liquefied gas</td>
</tr>
<tr>
<td>Repr. 1A</td>
<td>Reproductive toxicity, Category 1A</td>
</tr>
<tr>
<td>Repr. 1B</td>
<td>Reproductive toxicity, Category 1B</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation, Category 2</td>
</tr>
<tr>
<td>Skin Sens. 1</td>
<td>Skin sensitisation, Category 1</td>
</tr>
<tr>
<td>STOT RE 2</td>
<td>Specific target organ toxicity — Repeated exposure, Category 2</td>
</tr>
<tr>
<td>H226</td>
<td>Flammable liquid and vapour.</td>
</tr>
<tr>
<td>H280</td>
<td>Contains gas under pressure; may explode if heated.</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled.</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>H360D</td>
<td>May damage the unborn child.</td>
</tr>
<tr>
<td>H360F</td>
<td>May damage fertility.</td>
</tr>
<tr>
<td>H360FD</td>
<td>May damage fertility. May damage the unborn child.</td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
</tbody>
</table>

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 not therefore be construed as guaranteeing any specific property of the product.