MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. Product identifier

Product form : Substance

EC no : 205-439-3
CAS No : 140-89-6
Product code : 05358
Chemical structure :

\[
\begin{array}{c}
\text{S} \\
\text{O} \\
\text{CH}_3
\end{array}
\]

Synonyms : Potassium ethyl xanthogenate / Potassium O-ethyl dithiocarbonate / O-Ethylxanthic acid potassium salt

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

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]

Acute toxicity (oral)  : H302
Category 4
Serious eye damage/eye irritation, Category 2  : H319
Skin corrosion/irritation, Category 2  : H315
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation  : H335

Full text of classification categories and H statements : see section 16
Classification according to Directive 67/548/EEC or 1999/45/EC
Xn; R22
Xi; R36/37/38
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):
H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

Precautionary statements (CLP):
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
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. Substance
Name: POTASSIUM ETHYL XANTHATE Extra Pure
CAS No: 140-89-6
EC no: 205-439-3

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

3.2. Mixture
Not applicable
SECTION 4: First aid measures

4.1. Description of first aid measures

**First-aid measures after inhalation**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**First-aid measures after skin contact**: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see ... on this label).

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

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

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

**Symptoms/injuries after inhalation**: May cause respiratory irritation.

**Symptoms/injuries after skin contact**: Causes skin irritation.

**Symptoms/injuries after eye contact**: Causes serious eye irritation.

**Symptoms/injuries after ingestion**: Swallowing a small quantity of this material will result in serious health hazard.

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

No additional information available

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**: Evacuate unnecessary personnel.

6.1.2. For emergency responders

**Protective equipment**: Use personal protective equipment as required.

**Emergency procedures**: Stop release.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

**Methods for cleaning up**: Clear up rapidly by scoop or vacuum.

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 breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.

**Hygiene measures**: Do not eat, drink or smoke when using this product. Wash ... thoroughly after handling.
7.2. **Conditions for safe storage, including any incompatibilities**

Storage conditions: Keep container tightly closed. Store in original container. Store in a dry place. Protect from moisture.

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**: Wear respiratory protection

**SECTION 9: Physical and chemical properties**

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

- **Physical state**: Solid
- **Colour**: Yellow crystalline.
- **Odour**: carbon disulphide like.
- **Odour threshold**: No data available
- **pH**: No data available
- **Relative evaporation rate (butylacetate=1)**: No data available
- **Melting point**: 210 °C
- **Freezing point**: No data available
- **Boiling point**: No data available
- **Flash point**: 96 °C
- **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
- **Density**: 1.558 g/cm³
- **Solubility**: Water: Soluble in water
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
Direct sunlight. Air contact. Moisture.

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
Acute toxicity : Oral: Harmful if swallowed.

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

Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : May cause respiratory irritation.
Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified
Potential adverse human health effects and symptoms: Harmful if swallowed.

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
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 ...

SECTION 14: Transport information

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

14.1. UN number
UN-No. (ADR) : 3342
UN-No. (IMDG) : 3342
UN-No. (IATA) : 3342
UN-No. (ADN) : 3342
UN-No. (RID) : 3342

14.2. UN proper shipping name
Proper Shipping Name (ADR) : XANTHATES
Proper Shipping Name (IMDG) : XANTHATES
Proper Shipping Name (IATA) : XANTHATES
Proper Shipping Name (ADN) : XANTHATES
Proper Shipping Name (RID) : XANTHATES
Transport document description (ADR) : UN 3342 XANTHATES, 4.2, II, (D/E)
Transport document description (IMDG) : UN 3342 XANTHATES, 4.2, II
### 14.3. Transport hazard class(es)

| Transport document description (IATA) | UN 3342 XANTHATES, 4.2, II |
| Transport document description (ADN) | UN 3342 XANTHATES, 4.2, II |
| Transport document description (RID) | UN 3342 XANTHATES, 4.2, II |

#### ADR

- Transport hazard class(es) (ADR): 4.2
- Danger labels (ADR): 4.2

#### IMDG

- Transport hazard class(es) (IMDG): 4.2
- Danger labels (IMDG): 4.2

#### IATA

- Transport hazard class(es) (IATA): 4.2
- Hazard labels (IATA): 4.2

#### ADN

- Transport hazard class(es) (ADN): 4.2
- Danger labels (ADN): 4.2

#### RID

- Transport hazard class(es) (RID): 4.2
- Danger labels (RID): 4.2

### 14.4. Packing group

| Packing group (ADR) | II |
| Packing group (IMDG) | II |
### Packing group (IATA) : II
### Packing group (ADN) : II
### Packing group (RID) : II

### 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
- Classification code (ADR) : S2
- Limited quantities (ADR) : 0
- Excepted quantities (ADR) : E2
- Packing instructions (ADR) : P002, IBC06
- Mixed packing provisions (ADR) : MP14
- Portable tank and bulk container instructions (ADR) : T3
- Portable tank and bulk container special provisions (ADR) : TP33
- Tank code (ADR) : SGAV
- Vehicle for tank carriage : AT
- Transport category (ADR) : 2
- Special provisions for carriage - Packages (ADR) : V1
- Hazard identification number (Kemler No.) : 40
- Orange plates : 40
- Tunnel restriction code (ADR) : D/E
- EAC code : 1Y

#### - Transport by sea
- Limited quantities (IMDG) : 0
- Excepted quantities (IMDG) : E2
- Packing instructions (IMDG) : P002
- Packing provisions (IMDG) : PP31
- IBC packing instructions (IMDG) : IBC06
- IBC special provisions (IMDG) : B2
- Tank instructions (IMDG) : T3
- Tank special provisions (IMDG) : TP33
- EmS-No. (Fire) : F-A
- EmS-No. (Spillage) : S-J
- Stowage category (IMDG) : D
- Stowage and handling (IMDG) : SW2
- MFAG-No : 135

#### - Air transport
- PCA Excepted quantities (IATA) : E2
- PCA Limited quantities (IATA) : Forbidden
- PCA limited quantity max net quantity (IATA) : Forbidden
- PCA packing instructions (IATA) : 467
POTASSIUM ETHYL XANTHATE Extra Pure

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PCA max net quantity (IATA) : 15kg
CAO packing instructions (IATA) : 470
CAO max net quantity (IATA) : 50kg
Special provision (IATA) : A3
ERG code (IATA) : 4L

- Inland waterway transport
  Classification code (ADN) : S2
  Limited quantities (ADN) : 0
  Excepted quantities (ADN) : E2
  Equipment required (ADN) : PP
  Number of blue cones/lights (ADN) : 0

- Rail transport
  Classification code (RID) : S2
  Limited quantities (RID) : 0
  Excepted quantities (RID) : E2
  Packing instructions (RID) : P002, IBC06
  Mixed packing provisions (RID) : MP14
  Portable tank and bulk container instructions (RID) : T3
  Portable tank and bulk container special provisions (RID) : TP33
  Tank codes for RID tanks (RID) : SGAV
  Transport category (RID) : 2
  Special provisions for carriage – Packages (RID) : W1
  Colis express (express parcels) (RID) : CE10
  Hazard identification number (RID) : 40

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
POTASSIUM ETHYL XANTHATE Extra Pure is not on the REACH Candidate List
POTASSIUM ETHYL XANTHATE Extra Pure is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

Denmark
POTASSIUM ETHYL XANTHATE Extra Pure
Safety Data Sheet

Class for fire hazard: Class III-1
Store unit: 50 liter
Classification remarks: Flammable according to the Danish Ministry of Justice; 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

15.2. Chemical safety assessment
No additional information available

SECTION 16: Other information

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

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Oral)</th>
<th>Acute toxicity (oral), Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Irrit. 2</td>
<td>Serious eye damage/eye irritation, Category 2</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation, Category 2</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation</td>
</tr>
<tr>
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</tr>
<tr>
<td>R22</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>R36/37/38</td>
<td>Irritating to eyes, respiratory system and skin</td>
</tr>
<tr>
<td>Xi</td>
<td>Irritant</td>
</tr>
<tr>
<td>Xn</td>
<td>Harmful</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.