1. Product and Company identification

**Trade Name:** Methyl Ethyl Ketone  
**Supplier:** ALFA LAVAL Lund AB  
Box 74  
**Product Type:** SE-221 00 Lund  
**Solvent** Sweden  
Tel: +46 46 36 65 00  

**Emergency number:** +46 8 33 70 43

2. Composition and Information on the Components

<table>
<thead>
<tr>
<th>Hazardous ingredient</th>
<th>Weight-%</th>
<th>CAS No</th>
<th>Classification</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Ethyl Ketone</td>
<td>100</td>
<td>78-93-3</td>
<td>F, Xi</td>
<td>R11-36-66-67</td>
</tr>
</tbody>
</table>

See section 16 for explanation to R-phrases.

3. Hazard Identification

Highly flammable. Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

4. First Aid Measurements

- **First aid – Skin contact**  
  Wash off with plenty of water. Remove contaminated clothing.

- **First aid – Eye contact**  
  Rinse out with plenty of water for at least 5 minutes with the eyelid held wide open. Summon eye specialist.

- **First aid – If Swallowed**  
  Immediately make victim drink plenty of water. After that give active carbon. Do not induce vomiting. Risk of aspiration! Don’t give milk or digestible oils. Never give anything by mouth to an unconscious person. Obtain medical care. Laxative: give sodium sulphate.

- **First aid – Inhalation**  
  Fresh air. Get medical attention.
5. Fire Fighting Measurements

Extinguishing media

Powder, foam, CO₂ or waterspray.

Special hazards of product

Formation of explosive mixtures possible with air. Keep away from sources of ignition. Cool container with spray water from a safe distance. Vapours are heavier than air and may travel along the floor and collect in low areas.

Protective equipment for fire fighting

Self-contained breathing apparatus, see also section 8.

6. Accidental Release Measures

Personal precautions

See section 8.

Spillage

Do not allow to enter sewerage system. Take up with non-combustible liquid-absorbent material and place in approved containers for disposal. Note! Risk of ignition and explosion. At large accidental release contact local authorities.

7. Handling and Storage

Handling

Take measures to avoid substance contact with skin and eyes. Use only in well-ventilated areas, mechanical exhaust ventilation or point-exhausting device may be necessary. Electrically ground all equipment (explosion-proof) when handling this product and use only non-sparking tools.

Storage

Tightly closed in original container. In a well-ventilated place. Keep away from sources of ignition and heat.

8. Exposure Control / Personal Protection

Exposure limits AFS 2005:17

Sweden

NGV 8hrs: 50 ppm, 150 mg/m³

TGV 15min: 100 ppm, 300 mg/m³

General information

The product should be handled with the care usual when dealing with chemicals. Keep eye-wash available on working place. Keep away from sources of ignition. Take measures to prevent electrostatic charging. Use only in well-ventilated areas.

Respiratory protection

A full face piece or a half mask equipped for organic vapours /mists or a self-contained breathing apparatus can be needed.

Eye protection

Chemical goggles.

Hand protection

Protective gloves.

Clothes

Avoid skin contact. Use protective clothing.
9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colorless liquid with a fruit-like odor</td>
</tr>
<tr>
<td>Boiling point</td>
<td>80 °C</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>105 hPa (20 °C)</td>
</tr>
<tr>
<td>Flash point</td>
<td>-4 °C</td>
</tr>
<tr>
<td>Relative density</td>
<td>805 kg/m³</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>292 g/l (20 °C)</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>1.8 – 11.5%</td>
</tr>
<tr>
<td>pH</td>
<td>5.5 (300 g/l 20 °C)</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>72.1 g/mole</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>514 °C</td>
</tr>
<tr>
<td>Vapour density</td>
<td>2.5</td>
</tr>
<tr>
<td>logP(o/w)</td>
<td>0.29</td>
</tr>
<tr>
<td>Viscosity</td>
<td>0.42 mPas</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>0.3</td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions to be avoided</td>
<td>Heating. Exposable with air in vaporous/gaseous state.</td>
</tr>
<tr>
<td>Materials to avoid</td>
<td>Avoid strong oxidizing agents and alkali salts.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>May form peroxides.</td>
</tr>
</tbody>
</table>

11. Toxicological Information

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>LD50 (oral rat): 2737 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 (dermal rabbit): &gt;8000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LC50 (inhalation rat): 20 mg/l/4h</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Inhalation may cause headache, indisposition, dizziness and at higher concentrations vomiting and coma. Narcotic effect.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Drying-out effect resulting in chapped skin. Prolonged or repeated contact may cause eczema.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>The vapours may be irritating.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Indisposition, vomiting. Risk of pulmonary edema (aspiration).</td>
</tr>
<tr>
<td>Further data</td>
<td>An embryotoxic effect needs not to be feared when the threshold limit value is observed. Not mutagenic according to Ames-test.</td>
</tr>
</tbody>
</table>

Contact details for all countries are continually updated on our website.
Please visit www.alfalaval.com to access the information.
The latest version of Alfa Laval's SDS is available on our website.
12. Eco-toxicological Information

Biologic accumulation Not biocumulative, logP(o/w) = 0.29.

Biologic degradation Readily degradable. Risk of formation of explosive vapours above water surface.

Ecotoxic effects Fish LC50/96h: 3220 mg/l (Pimephales promelas).
Daphnia Magna EC50/48h: >5091 mg/l.
Sc. Quadricauda IC5/27d: >4300 mg/l.
Ps. Putida EC5/16h: 1150 mg/l.

13. Disposal

Disposal in compliance with official regulations. Always contact a permitted waste disposer to assure compliance. Do not allow entering the sewage system. EWC-code: 16 05 08.

14. Transport Information

Land transport ADR/RID UN-No: 1193
Proper shipping name: Methyl Ethyl Ketone
Class: 3
Packaging group: II
Classification code: F1

Sea transport IMDG UN-No: 1193
Proper shipping name: Methyl Ethyl Ketone
IMO-class: 3
Subsidiary risk: -
EmS No: F-E, S-d
Packaging group: II
Marine pollutant: No

Air transport ICAO/IATA UM-No: 1193
Proper shipping name: Methyl Ethyl Ketone
Class: 3
Subsidiary risk: -
Packaging group: II

According to existing regulations ADR/ADR-S SRVFS 2004:14
RID/RID-S SRVFS 2004:15
IMDG-koden amdt 32-04
DGR 47’tth Edition
15. Regulatory Information

Label Symbol(s):

![F](image)

F Highly flammable

![Xi](image)

Xi Irritant

Risk Phrases:

- R11 Highly flammable.
- R36 Irritating to eyes.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapours may cause drowsiness and dizziness.

Safety Phrases:

- S9 Keep container in a well ventilated place.
- S16 Keep away from sources of ignition – No smoking.

16. Other Information

Explanation to R-phrases in section 2

- R11 Highly flammable.
- R36 Irritating to eyes.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapours may cause drowsiness and dizziness.

Changes have been made in sections 4, 7, 8, 9, 10, 11, 12, 13 and 14.

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