SAFETY DATA SHEET

Propionic acid
10970

Version / Revision 1.00
Supersedes Version -
Revision Date 26-Aug-2016
Issuing date 26-Aug-2016

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

1.1. Product identifier

Identification of the substance/preparation

Propionic acid

CAS-No 79-09-4
EC No. 201-176-3
Registration number (REACH) 01-2119486971-24

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

Identified uses Intermediate under non-strictly controlled conditions
Uses advised against None

1.3. Details of the supplier of the safety data sheet

Company/Undertaking OXEA GmbH
Identification Otto-Roelen-Str. 3
D-46147 Oberhausen
Germany

Product Information Product Stewardship
FAX: +49 (0)208 693 2053
email: psq@oxea-chemicals.com

1.4. Emergency telephone number

Emergency telephone number +44 (0) 1235 239 671 (UK) available 24/7

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This substance is classified based on Directive 1272/2008/EC and its amendments (CLP Regulation)

- Flammable liquid Category 3, H226
- Skin corrosion/irritation Category 1B, H314
- Serious eye damage/eye irritation Category 1, H318
- Target Organ Systemic Toxicant - Single exposure Category 3, H335

Additional information
For full text of Hazard- and EU Hazard-statements see SECTION 16.

2.2. Label elements

Labelling according to Regulation 1272/2008/EC and its amendments (CLP Regulation).

Hazard pictograms
Signal word | Danger
---|---
Hazard statements | H226: Flammable liquid and vapour.  
H314: Causes severe skin burns and eye damage.  
H335: May cause respiratory irritation.
Precautionary statements | P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P260: Do not breathe gas/mist/vapours.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
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/doctor.  
P403 + P233: Store in a well ventilated place. Keep container tightly closed.  
P235: Keep cool.

2.3. Other hazards
Vapour/air-mixtures are explosive at intense warming  
Components of the product may be absorbed into the body by inhalation and ingestion

PBT and vPvB assessment | This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB)

SECTION 3: Composition / information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>REACH-No</th>
<th>1272/2008/EC</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propionic acid</td>
<td>79-09-4</td>
<td>01-2119486971-24</td>
<td>Flam. Liq. 3; H226 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335 (&gt;=10%)</td>
<td>&gt; 99,5</td>
</tr>
</tbody>
</table>

For full text of Hazard- and EU Hazard-statements see SECTION 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Keep at rest. Aerate with fresh air. When symptoms persist or in all cases of doubt seek medical advice.
Eyes
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

Skin
Wash off immediately with soap and plenty of water. When symptoms persist or in all cases of doubt seek medical advice.

Ingestion
Call a physician immediately. Do not induce vomiting without medical advice.

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

Main symptoms
Cough, shortness of breath, abdominal pain, nausea, vomiting, circulatory collapse.

Special hazard
Lung irritation.

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

General advice
Remove contaminated, soaked clothing immediately and dispose of safely. First aider needs to protect himself.

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Foam, dry chemical, carbon dioxide (CO2), water spray

Unsuitable Extinguishing Media
Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Under conditions giving incomplete combustion, hazardous gases produced may consist of:
carbon monoxide (CO)
carbon dioxide (CO2)
Combustion gases of organic materials must in principle be graded as inhalation poisons
Vapours are heavier than air and may spread along floors
Vapour/air-mixtures are explosive at intense warming

5.3. Advice for firefighters

Special protective equipment for firefighters
Fire fighter protection should include a self-contained breathing apparatus (NIOSH-approved or EN 133) and full fire-fighting turn out gear.

Precautions for firefighting
Cool containers / tanks with water spray. Water run-off and vapor cloud may be corrosive. Dike and collect water used to fight fire. Keep people away from and upwind of fire.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: For personal protective equipment see section 8. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep people away from and upwind of spill/leak. Ensure adequate ventilation, especially in confined areas. Keep away from heat and sources of ignition.

For emergency responders: Personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage. Do not discharge product into the aquatic environment without pretreatment (biological treatment plant).

6.3. Methods and material for containment and cleaning up

Methods for containment
Stop the flow of material, if possible without risk. Dike spilled material, where this is possible.

Methods for cleaning up
Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum. Dispose of in accordance with local regulations. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).

6.4. Reference to other sections

For personal protective equipment see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Provide sufficient air exchange and/or exhaust in work rooms.

Hygiene measures
When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

Advice on the protection of the environment
See Section 8: Environmental exposure controls.

Incompatible products
bases
amines
strong oxidizing agents

7.2. Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion
Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). In case of fire, emergency cooling with water spray should be available. Ground and bond containers when transferring material. Vapour/air-mixtures are explosive at intense warming.
SAFETY DATA SHEET

10970
Propionic acid

Technical measures/Storage conditions
Keep containers tightly closed in a cool, well-ventilated place. Handle and open container with care. Keep at temperatures between -12 and 38 °C (10 and 100 °F).

Temperature class
T2

7.3. Specific end use(s)
Intermediate under non-strictly controlled conditions

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Exposure limits Egypt

<table>
<thead>
<tr>
<th>Component</th>
<th>TWA (mg/m³)</th>
<th>TWA (ppm)</th>
<th>STEL (mg/m³)</th>
<th>STEL (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propionic acid</td>
<td>30</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 79-09-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Exposure limits Israel

<table>
<thead>
<tr>
<th>Component</th>
<th>TWA (mg/m³)</th>
<th>TWA (ppm)</th>
<th>STEL (mg/m³)</th>
<th>STEL (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propionic acid</td>
<td></td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 79-09-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Exposure limits South Africa

<table>
<thead>
<tr>
<th>Component</th>
<th>TWA (mg/m³)</th>
<th>TWA (ppm)</th>
<th>STEL (mg/m³)</th>
<th>STEL (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propionic acid</td>
<td>30</td>
<td>10</td>
<td>45</td>
<td>15</td>
</tr>
<tr>
<td>CAS: 79-09-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Exposure limits United Arab Emirates

<table>
<thead>
<tr>
<th>Component</th>
<th>TWA (mg/m³)</th>
<th>TWA (ppm)</th>
<th>STEL (mg/m³)</th>
<th>STEL (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propionic acid</td>
<td>30</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 79-09-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Exposure limits Kuwait

No exposure limits established.

Note
For details and further information please refer to the original regulation.

Occupational Exposure Controls

8.2. Exposure controls
SAFETY DATA SHEET

Propionic acid

Appropriate Engineering controls
General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Explosion-proof equipment (for example fans, switches, and grounded ducts) should be used in mechanical ventilation systems.

Personal protective equipment

General industrial hygiene practice
Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures
When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

Eye protection
Tightly fitting safety goggles. In addition to goggles, wear a face shield if there is a reasonable chance for splash to the face.

Hand protection
Wear protective gloves. Recommendations are listed below. Other protective material may be used, depending on the situation, if adequate degradation and permeation data is available. If other chemicals are used in conjunction with this chemical, material selection should be based on protection for all chemicals present.

Suitable material | Evaluation | Glove thickness | Break through time
--- | --- | --- | ---
butyl-rubber | according to EN 374: level 6 | approx 0.3 mm | > 480 min

polychloroprene / nitrile rubber | according to EN 374: level 4 | approx 0.9 mm | approx 120 min

Skin and body protection
Impervious clothing. Wear face-shield and protective suit for abnormal processing problems.

Respiratory protection
Respirator with filter for organic vapour. Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Equipment should conform to NIOSH, EN or other applicable national standards.

Environmental exposure controls
If possible use in closed systems. If leakage can not be prevented, the substance needs to be suck off at the emersion point, if possible without danger. Observe the exposure limits, clean exhaust air if needed. If recycling is not practicable, dispose of in compliance with local regulations. Inform the responsible authorities in case of leakage into the atmosphere, or of entry into waterways, soil or drains.

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>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>unpleasant</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Melting point/range  -21.5 °C
Boiling point/range  141 °C @ 1013 hPa
Flash point  50.5 °C
Method  DIN 51755
Evaporation rate  No data available
Flammability (solid, gas)  Does not apply, the substance is a liquid
Lower explosion limit  2.1 Vol %
Upper explosion limit  12 Vol %

Vapour pressure

<table>
<thead>
<tr>
<th>Values [hPa]</th>
<th>Values [kPa]</th>
<th>Values [atm]</th>
<th>@ °C</th>
<th>@ °F</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>0.40</td>
<td>0.004</td>
<td>23</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>2.2</td>
<td>0.022</td>
<td>50</td>
<td>122</td>
<td></td>
</tr>
</tbody>
</table>

Vapour density  2.6 (Air = 1) @ 20 °C (68 °F)

Relative density

<table>
<thead>
<tr>
<th>Values</th>
<th>@ °C</th>
<th>@ °F</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.99</td>
<td>20</td>
<td>68</td>
</tr>
</tbody>
</table>

Solubility  completely soluble, in water
log Pow  0.33 (measured)
Autoignition temperature  440 °C
Method  DIN 51794
Decomposition temperature  No data available
Viscosity  1,175 mPa*s @ 15 °C
Oxidizing properties  Does not apply, substance is not oxidising. There are no chemical groups associated with oxidizing properties
Explosive properties  Does not apply, substance is not explosive. There are no chemical groups associated with explosive properties

9.2. Other information

Molecular weight  74.08
Molecular formula  C3 H6 O2
Refractive index  1.387 @ 20 °C

SECTION 10: Stability and Reactivity

10.1. Reactivity

The reactivity of the product corresponds to the typical reactivity shown by the substance group as described in any text book on organic chemistry.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Vapour/air-mixtures are explosive at intense warming.

10.4. Conditions to avoid

Avoid contact with heat, sparks, open flame and static discharge. Avoid any source of ignition.

10.5. Incompatible materials
10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure: Ingestion, Inhalation, Eye contact, Skin contact

<table>
<thead>
<tr>
<th>Acute toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propionic acid (79-09-4)</td>
</tr>
<tr>
<td>Routes of Exposure</td>
</tr>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>Inhalative</td>
</tr>
</tbody>
</table>

**Propionic acid, CAS: 79-09-4**

**Assessment**

Based on available data, the classification criteria are not met for:
- Acute oral toxicity
- Acute inhalation toxicity
- STOT SE

Dermal acute toxicity data were not determined, because of the corrosive properties of the substance

**Irritation and corrosion**

<table>
<thead>
<tr>
<th>Propionic acid (79-09-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Organ Effects</td>
</tr>
<tr>
<td>Skin</td>
</tr>
<tr>
<td>Eyes</td>
</tr>
</tbody>
</table>

**Propionic acid, CAS: 79-09-4**

**Assessment**

The available data lead to the classification given in section 2

For respiratory irritation, no data are available

**Sensitization**

<table>
<thead>
<tr>
<th>Propionic acid (79-09-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Organ Effects</td>
</tr>
<tr>
<td>Skin</td>
</tr>
</tbody>
</table>

**Propionic acid, CAS: 79-09-4**

**Assessment**

Based on available data, the classification criteria are not met for:
- Skin sensitization
- For respiratory sensitization, no data are available

**Subacute, subchronic and prolonged toxicity**

<table>
<thead>
<tr>
<th>Propionic acid (79-09-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
</tbody>
</table>

bases, amines, strong oxidizing agents.
SAFETY DATA SHEET

Subchronic toxicity
- NOAEL: 6200 ppm/d (90d) Local effects
  - rat, male/female
  - OECD 408 Oral
- NOAEL: 50000 ppm/d (90d) systemic effects
  - rat, male/female
  - OECD 408 Oral
- LOAEL: 136,9 mg/kg/d (90d)
  - mouse
  - OECD 411 Dermal

Propionic acid, CAS: 79-09-4
Assessment
Based on available data, the classification criteria are not met for:
STOT RE

Carcinogenicity, Mutagenicity, Reproductive toxicity
Propionic acid (79-09-4)

<table>
<thead>
<tr>
<th>Type</th>
<th>Dose</th>
<th>Species</th>
<th>Evaluation</th>
<th>Method</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutagenicity</td>
<td></td>
<td>Salmonella typhimurium</td>
<td>negative</td>
<td>OECD 471 (Ames)</td>
<td>In vitro study</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td></td>
<td>Chinese hamster</td>
<td>negative</td>
<td>OECD 474</td>
<td>In vivo</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>NOAEL: 400 ppm</td>
<td>rat</td>
<td></td>
<td>Oral</td>
<td>Local effects</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>NOAEL: 4000 ppm</td>
<td>rat</td>
<td></td>
<td>Oral</td>
<td>systemic effects</td>
</tr>
<tr>
<td>Developmental Toxicity</td>
<td>NOAEL 300 mg/kg/d</td>
<td>rat</td>
<td></td>
<td>OECD 414, Oral</td>
<td>Maternal toxicity, Teratogenicity, read across</td>
</tr>
</tbody>
</table>

Propionic acid, CAS: 79-09-4
CMR Classification
The available data on CMR properties are summarized in the table above. They do not indicate a classification into categories 1A or 1B
Evaluation
In vitro tests did not show mutagenic effects

Propionic acid, CAS: 79-09-4
Main symptoms
cough, shortness of breath, abdominal pain, nausea, vomiting, circulatory collapse.

Target Organ Systemic Toxicant - Single exposure
Based on available data, the classification criteria are not met for:
STOT SE

Target Organ Systemic Toxicant - Repeated exposure
Based on available data, the classification criteria are not met for:
STOT RE

Aspiration toxicity
no data available

Note
Handle in accordance with good industrial hygiene and safety practice. Further details on substance data can be found in the registration dossier under the following link:

SECTION 12: Ecological information

12.1. Toxicity
**SAFETY DATA SHEET**

**Propionic acid**

**Revision Date**
26-Aug-2016

**Version / Revision**
1.00

---

**Acute aquatic toxicity**

**Propionic acid (79-09-4)**

<table>
<thead>
<tr>
<th>Species</th>
<th>Exposure time</th>
<th>Dose</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leuciscus idus (Golden orfe)</td>
<td>96h</td>
<td>LC50: &gt; 10000 mg/l</td>
<td>DIN 38412, part 15</td>
</tr>
<tr>
<td>Daphnia magna (Water flea)</td>
<td>48h</td>
<td>EC50: &gt; 500 mg/l</td>
<td>84/449/EEC C.2</td>
</tr>
<tr>
<td>Desmodesmus subspicatus</td>
<td>72h</td>
<td>EC50: &gt; 500 mg/l</td>
<td>OECD 201</td>
</tr>
<tr>
<td>Activated sludge (domestic)</td>
<td>30 min</td>
<td>EC20: 1040 mg/l</td>
<td>ISO 8192 Respiration rate</td>
</tr>
</tbody>
</table>

**12.2. Persistence and degradability**

**Propionic acid, CAS: 79-09-4**

**Biodegradation**

95 % (10 d), aerobic, activated sludge, industrial, OECD 302 B (Zahn-Wellens Test).

**12.3. Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Propionic acid (79-09-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>log Pow</td>
</tr>
<tr>
<td>0.33</td>
</tr>
</tbody>
</table>

**12.4. Mobility in soil**

<table>
<thead>
<tr>
<th>Propionic acid (79-09-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
<tr>
<td>Result</td>
</tr>
<tr>
<td>Method</td>
</tr>
<tr>
<td>no data available</td>
</tr>
</tbody>
</table>

**12.5. Results of PBT and vPvB assessment**

**Propionic acid, CAS: 79-09-4**

**PBT and vPvB assessment**

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB)

**12.6. Other adverse effects**

**Propionic acid, CAS: 79-09-4**

No data available

**Note**

Avoid release to the environment.

---

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Product Information**

Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local statutes and possibilities for disposal.

Hazardous waste according to European Waste Catalogue (EWC)
Uncleaned empty packaging
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

SECTION 14: Transport information

ADR/RID

| 14.1. UN number | UN 3463 |
| 14.2. UN proper shipping name | Propionic acid |
| 14.3. Transport hazard class(es) | 8 |
| Subsidiary Risk | 3 |
| 14.4. Packing group | II |
| 14.5. Environmental hazards | no |
| 14.6. Special precautions for user | ADR Tunnel restriction code (D/E) |
| Classification Code | CF1 |
| Hazard Number | 83 |

ADN

| 14.1. UN number | UN 3463 |
| 14.2. UN proper shipping name | Propionic acid |
| 14.3. Transport hazard class(es) | 8 |
| Subsidiary Risk | 3 |
| 14.4. Packing group | II |
| 14.5. Environmental hazards | no |
| 14.6. Special precautions for user | Classification Code CF1 |
| Hazard Number | 83 |

ICAO-TI / IATA-DGR

| 14.1. UN number | UN 3463 |
| 14.2. UN proper shipping name | Propionic acid |
| 14.3. Transport hazard class(es) | 8 |
| Subsidiary Risk | 3 |
| 14.4. Packing group | II |
| 14.5. Environmental hazards | no |
| 14.6. Special precautions for user | no data available |

IMDG

| 14.1. UN number | UN 3463 |
| 14.2. UN proper shipping name | Propionic acid |
| 14.3. Transport hazard class(es) | 8 |
| Subsidiary Risk | 3 |
SAFETY DATA SHEET

10970
Propionic acid

Revision Date 26-Aug-2016
Version / Revision 1 .00

14.4. Packing group
II
14.5. Environmental hazards
no
14.6. Special precautions for user
EmS F-E, S-C
14.7. Transport in bulk according to Annex
II of MARPOL and the IBC Code
Product name Propionic acid
Ship type 3
Pollution category Y

SECTION 15: Regulatory information

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

Regulation 1272/2008, Annex VI

Propionic acid, CAS: 79-09-4
Classification Skin Corr. 1B; H314
Hazard pictograms GHS05 Corrosion
Signal word Danger
Hazard statements H314

International Inventories

Propionic acid, CAS: 79-09-4
AICS (AU)
DSL (CA)
IECSC (CN)
EC-No. 2011763 (EU)
ENCS (2)-602 (JP)
ISHL (2)-602 (JP)
KECI KE-29352 (KR)
INSQ (MX)
PCCS (PH)
TSCA (US)
NZIoC (NZ)
TCSI (TW)

National regulatory information Egypt

Banned Chemicals (Unified List of Hazardous Substances, List A)
not listed

Substances Requiring Permits (Unified List of Hazardous Substances, List B)
not listed

Non-Restricted Substances (Unified List of Hazardous Substances, List C)
not listed

National regulatory information Israel
Harmful Chemicals (Hazardous Substances Law, 5753-1993, Annex 1)

<table>
<thead>
<tr>
<th>Component</th>
<th>Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propionic acid</td>
<td>Yes</td>
</tr>
<tr>
<td>CAS: 79-09-4</td>
<td></td>
</tr>
</tbody>
</table>

Toxic Chemicals (Hazardous Substances Law, 5753-1993, Annex 2)
not listed

Hazardous materials requiring annual testing (Labor Inspection Regs., Appendix 1)
not listed

Hazardous Substances Regulations (Classification & Exemptions)
not listed

National regulatory information South Africa

Group 1 Hazardous Substances (G.N.R 452)
not listed

National regulatory information United Arab Emirates

Prohibited and restricted imports (Ministry of Environment and Water)
not listed

For details and further information please refer to the original regulation.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3
H226: Flammable liquid and vapour.
H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
H335: May cause respiratory irritation.

Abbreviations
A table of terms and abbreviations can be found under the following link:

Training advice
For effective first-aid, special training / education is needed.

Sources of key data used to compile the datasheet
Information contained in this safety data sheet is based on Oxea owned data and public sources deemed valid or acceptable. The absence of data elements required by OSHA, ANSI or Annex II, Regulation 1907/2006/EC indicates, that no data meeting these requirements is available.

Further information for the safety data sheet
Changes against the previous version are marked by ***. Observe national and local legal requirements. For more information, other material safety data sheets or technical data sheets please consult the Oxea homepage (www.oxea-chemicals.com).
Disclaimer

For industrial use only. The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. Oxea makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.

End of Safety Data Sheet