Safety Data Sheet
Acrylic Acid (glacial)

Version 1.18  Revision Date 03.02.2012

1. Identification of the substance/mixture and of the company/undertaking

<table>
<thead>
<tr>
<th>Trade name</th>
<th>Acrylic Acid (glacial)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms</td>
<td>Acrylic Acid</td>
</tr>
<tr>
<td>Product code</td>
<td>5011</td>
</tr>
<tr>
<td>Use</td>
<td>For industrial use only.</td>
</tr>
<tr>
<td>Company</td>
<td>Sasol Solvents</td>
</tr>
<tr>
<td></td>
<td>A Division of Sasol Chemical Industries</td>
</tr>
<tr>
<td></td>
<td>2 Sturdee Avenue</td>
</tr>
<tr>
<td></td>
<td>Rosebank</td>
</tr>
<tr>
<td></td>
<td>2196</td>
</tr>
<tr>
<td></td>
<td>Republic of South Africa</td>
</tr>
</tbody>
</table>

Information (Product safety)

Telephone: +27 11 280 0000  Fax: +27 11 280 0198
E-mail address msds.info@sasol.com

Emergency telephone number

Europe, Israel, Africa, Americas  +44 (0)1235 239 670
Middle East, Arabic African countries  +44 (0)1235 239 671
Asia Pacific  +65 3158 1074
China  +86 10 5100 3039
South Africa  +27 (0)17 610 4444
Australia  +61 2 9032 0460

2. Hazards identification

Identification of the risks
R10  Flammable.
R20/21/22  Harmful by inhalation, in contact with skin and if swallowed.
R35  Causes severe burns.
R50  Very toxic to aquatic organisms.

3. Composition/information on ingredients

Acrylic acid; prop-2-enoic acid
Contents: 99.50 %W/W

CAS-No. 79-10-7  Index-No. 607-061-00-8  EC-No. 201-177-9
Symbol(s) C, N  R-phrase(s) -R10 -R20/21/22 -R35 -R50

For the full text of the R-phrases mentioned in this Section, see Section 16.

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4. First aid measures

**General advice**  
In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Inhalation**  
Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, get medical attention immediately.

**Skin contact**  
Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. Call a physician immediately.

**Eye contact**  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Protect unharmed eye.

**Ingestion**  
If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

**Notes to physician**

**Risks**  
Corrosive effects sensitising effects

5. Firefighting measures

**Suitable extinguishing media**
Water spray, Dry powder, Foam, Carbon dioxide (CO2)

**Specific hazards during firefighting**
Do not allow run-off from fire fighting to enter drains or water courses.

**Special protective equipment for firefighters**
Wear self-contained breathing apparatus and protective suit.

**Further information**
In the event of fire, cool tanks with water spray.

6. Accidental release measures

**Personal precautions**
Use personal protective equipment. Do not breathe vapours or spray mist.

**Environmental precautions**
Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

**Methods for cleaning up**
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

**Additional advice**
Never return spills in original containers for re-use.
7. Handling and storage

Handling

Safe handling advice
Wear personal protective equipment. Avoid contact with skin and eyes. Keep away from sources of ignition - No smoking.

Advice on protection against fire and explosion
Use explosion-proof equipment. Polymerisation is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers.

Storage

Requirements for storage areas and containers
Keep containers tightly closed in a dry, cool and well-ventilated place. The stabiliser is only effective in the presence of oxygen. Keep away from heat.

8. Exposure controls/personal protection

Components with workplace control parameters

NATIONAL OCCUPATIONAL EXPOSURE LIMITS
Contains no substances with occupational exposure limit values.

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS
Contains no substances with occupational exposure limit values.

Engineering measures
Provide sufficient air exchange and/or exhaust in work rooms.

Personal protective equipment

Respiratory protection
Suitable respiratory equipment:

Hand protection
Gloves suitable for permanent contact:
Material: butyl-rubber
Break through time: 4 h
Material thickness: 0.5 mm

Eye protection
Face-shield

Skin and body protection
Protective suit

Hygiene measures
Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

Protective measures
Do not breathe vapours or spray mist. Avoid contact with the skin and the eyes. Wear suitable protective equipment.

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9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>State of matter</td>
<td>Liquid; at 20 °C; 1,013 hPa</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>Strong</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>12.3 °C</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>140.9 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>50 °C; Closed cup</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>438 °C</td>
</tr>
<tr>
<td>Density</td>
<td>1.05 g/cm³; 20 °C</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Completely soluble, Completely miscible</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>1.262 mPa.s; 20 °C</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials to avoid</td>
<td>Reducing agents, Oxidizing agents, Acids and bases</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Stable under recommended storage conditions.</td>
</tr>
<tr>
<td>Hazardous reactions</td>
<td>Polymerisation occurs when exposed to white light, ultraviolet light or heat.</td>
</tr>
<tr>
<td></td>
<td>Polymericises with risk of fire and explosion.</td>
</tr>
<tr>
<td></td>
<td>Hazardous polymerization may occur upon depletion of inhibitor - may cause</td>
</tr>
<tr>
<td></td>
<td>heat and pressure build-up in closed containers.</td>
</tr>
</tbody>
</table>

11. Toxicological information

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>Acrylic acid; prop-2-enoic acid:</td>
</tr>
<tr>
<td></td>
<td>LD50 rat: 2,590 mg/kg; (literature value)</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>Acrylic acid; prop-2-enoic acid:</td>
</tr>
<tr>
<td></td>
<td>LC50 rat: 1,200 mg/l; (literature value); 4 h</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>Acrylic acid; prop-2-enoic acid:</td>
</tr>
<tr>
<td></td>
<td>LD50 rabbit: 280 mg/kg; (literature value)</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>Acrylic acid; prop-2-enoic acid:</td>
</tr>
<tr>
<td></td>
<td>rabbit: Severe skin irritation; (literature value)</td>
</tr>
<tr>
<td>Eye irritation</td>
<td>Acrylic acid; prop-2-enoic acid:</td>
</tr>
<tr>
<td></td>
<td>rabbit: highly irritating; (literature value)</td>
</tr>
</tbody>
</table>
12. Ecological information

Biodegradability  Acrylic acid; prop-2-enoic acid: > 60%; 28 d (literature value)

Ecotoxicity effects

Toxicity to fish  Acrylic acid; prop-2-enoic acid: Leuciscus idus melanotus: 315 mg/l; 48 h; (literature value)

Toxicity to daphnia and other aquatic invertebrates.  Acrylic acid; prop-2-enoic acid: EC50 Daphnia magna: 765 mg/l; 24 h; (literature value)

Toxicity to algae  Acrylic acid; prop-2-enoic acid: EC50 Desmodesmus subspicatus (green algae): < 1 mg/l; 72 h; (literature value)

13. Disposal considerations

Product  In accordance with local and national regulations., Do not contaminate ponds, waterways or ditches with chemical or used container., The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging  Do not burn, or use a cutting torch on, the empty drum., Triple rinse containers., Can be offered for recycling, re-conditioning or puncture.

14. Transport information

ADR  UN number: 2218; Class: 8, (3); Packaging group: II; CF1; Description of the goods: ACRYLIC ACID, STABILIZED

RID  UN number: 2218; Class: 8, (3); Packaging group: II; CF1; Description of the goods: ACRYLIC ACID, STABILIZED

ADNR  UN number: 2218; Class: 8, (3); Packaging group: II; CF1; Description of the goods: ACRYLIC ACID, STABILIZED

IMDG  UN number: 2218; Class: 8, (3); EmS: F-E, S-C; Packaging group: II; Description of the goods: ACRYLIC ACID, STABILIZED

ICAO/IATA  UN number: 2218; Class: 8, (3); Packaging group: II; Description of the goods: Acrylic acid, stabilized
15. Regulatory information

Labelling

Regulatory base
67/548/EEC

Symbol(s)
C: Corrosive
N: Dangerous for the environment

R-phrase(s)
R10: Flammable.
R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
R35: Causes severe burns.
R50: Very toxic to aquatic organisms.

S-phrase(s)
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S61: Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Hazardous components which must be listed on the label
Acrylic acid; prop-2-enoic acid
16. Other information

Full text of R-phrases referred to under sections 2 and 3

- R10 Flammable.
- R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- R35 Causes severe burns.
- R50 Very toxic to aquatic organisms.

All reasonable efforts were exercised to compile this SDS in accordance with ISO 11014 and ANSI Z400.1.1993. The SDS provides information regarding the health, safety and environmental hazards, at the date of issue, to facilitate the safe receipt, use and handling of the product in the workplace. Since Sasol and its subsidiaries cannot anticipate or control all conditions under which the product may be handled, used and received in the workplace, it remains the obligation of each user, receiver or handler to, prior to usage, review this SDS in the context within which the product will be received, handled or used in the workplace. The user, handler or receiver must ensure that the necessary mitigating measures are in place as regards health and safety. This does not substitute the need or requirement for any relevant risk assessments to be conducted. It further remains the responsibility of the receiver, handler or user to communicate such information to all relevant parties that may be involved in the receipt, use or handling of the product.

Although all reasonable efforts were exercised in the compilation of this SDS, Sasol does not expressly warrant the accuracy or assume any liability for the incompleteness of the information contained herein or any advice given. The product is sold and risk passes in accordance with the specific terms and conditions of sale.

The MSDS was created by: F. SHAI
The MSDS was approved by: M. HUYSER