

Material Safety Data Sheet

Acrylic Acid

Version 1.06

Revision Date 28.03.2007



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

Trade name	Acrylic Acid
Synonyms	Glacial Acrylic Acid
Use	For industrial use only.
Company	Hitech Chemicals

2. Composition/information on ingredients

acrylic acid; prop-2-enoic acid

Contents: 100.00 %W/W

CAS-No. 79-10-7

Index-No. 607-061-00-8

EC-No. 201-177-9

Symbol(s) C, N

R-phrases(s) -R10 -R20/21/22 -R35 -R50

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

3. 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.

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, seek medical advice

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	<i>immediately.</i>
Skin contact	<i>Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. Call a physician immediately.</i>
Eye contact	<i>Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Protect unharmed eye.</i>
Ingestion	<i>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.</i>
Notes to physician	
Risks	<i>corrosive effects sensitising effects</i>

5. Fire-fighting measures

Suitable extinguishing media	<i>Water spray, Dry powder, Foam, Carbon dioxide (CO2)</i>
Specific hazards during fire fighting	<i>Do not allow run-off from fire fighting to enter drains or water courses.</i>
Special protective equipment for fire-fighters	<i>Wear self-contained breathing apparatus and protective suit.</i>
Further information	<i>In the event of fire, cool tanks with water spray.</i>

6. Accidental release measures

Personal precautions	<i>Use personal protective equipment. Do not breathe vapours or spray mist.</i>
Environmental precautions	<i>Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.</i>
Methods for cleaning up	<i>Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).</i>
Additional advice	<i>Never return spills in original containers for re-use.</i>

7. Handling and storage

Handling

Safe handling advice	<i>Wear personal protective equipment. Do not breathe vapours or spray mist. Avoid contact with skin and eyes.</i>
Advice on protection against fire and explosion	<i>Provide sufficient air exchange and/or exhaust in work rooms.</i>

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Requirements for storage areas and containers Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Components with workplace control parameters

NATIONAL OCCUPATIONAL EXPOSURE LIMITS

Components	Type	Control parameters	Update	Basis
ACRYLIC ACID	TWA	2 ppm	01 2005	US ACGIH

no data available

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

no data available

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

unsuitable gloves

Material: Polyvinylchloride, leather, nitrile rubber/nitrile latex, natural rubber/natural latex

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.

9. Physical and chemical properties

Form

liquid

Colour

colourless

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Odour	strong
Melting point/range	12.3 °C
Boiling point/range	140.9 °C
Flash point	54.5 °C; open cup
Autoignition temperature	438 °C
Density	1.05 g/cm ³ ; 20 °C
Water solubility	completely soluble, completely miscible

10. Stability and reactivity

Hazardous decomposition products	Stable under normal conditions.
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11. Toxicological information

Acute oral toxicity	acrylic acid; prop-2-enoic acid: LD50 mouse: 2,400 mg/kg; (literature value) acrylic acid; prop-2-enoic acid: LD50 rat: 2,590 mg/kg; (literature value) acrylic acid; prop-2-enoic acid: LD50 rabbit: 250 mg/kg; (literature value)
Acute inhalation toxicity	acrylic acid; prop-2-enoic acid: LCLo rat: 4,000 mg/l; (literature value); 4 h acrylic acid; prop-2-enoic acid: LC50 rat: 1,200 mg/l; (literature value); 4 h
Acute dermal toxicity	acrylic acid; prop-2-enoic acid: LD50 rabbit: 280 mg/kg; (literature value)
Skin irritation	acrylic acid; prop-2-enoic acid: rabbit: Severe skin irritation; (literature value)
Eye irritation	acrylic acid; prop-2-enoic acid: rabbit: highly irritating; (literature value)

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: LC50 Salmo gairdneri: 10 - 100 mg/l; 96 h; OECD Test Guideline 203; (literature value) acrylic acid; prop-2-enoic acid: Leuciscus idus melanotus: 315 mg/l; 48 h; (literature value)

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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 Scenedesmus subspicatus: < 1 mg/l; 72 h; (literature value)

13. Disposal considerations

Product	Dispose of in accordance with local regulations.
Contaminated packaging	Store containers and offer for recycling of material when in accordance with the local regulations.

14. Transport information

ADR	UN-No.: 2218; Class: 8, (3); Packaging group: II; CF1; Description of the goods: ACRYLIC ACID, STABILIZED
RID	UN-No.: 2218; Class: 8, (3); Packaging group: II; CF1; Description of the goods: ACRYLIC ACID, STABILIZED
ADNR	UN-No.: 2218; Class: 8, (3); Packaging group: II; CF1; Description of the goods: ACRYLIC ACID, STABILIZED
IMDG	UN-No.: 2218; Class: 8, (3); EmS: F-E, S-C; Packaging group: II; Description of the goods: ACRYLIC ACID, STABILIZED
ICAO/IATA	UN-No. : 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-phrases(s)	R10: Flammable.

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R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R35: Causes severe burns.

R50: Very toxic to aquatic organisms.

S-phrases(s)

S 1/2: Keep locked up and out of the reach of children.

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 MSDS in accordance with ISO 11014 and ANSIZ400.1.1993. The MSDS 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 we 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 MSDS 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.

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