

## SAFETY DATA SHEET

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

Product Name: Acrylic acid  
CAS: 79-10-7  
Application: Laboratory chemicals, Manufacture of substances  
Manufacturer: Sinopharm Chemical Reagent Co., Ltd. No. 52 Ning Bo Road, Shanghai 200002, China  
Fax: 86-021-6321403  
Emergency Telephone: 86-0532-83889090  
Email: sj\_zjzx@sinopharm.com  
Website: <http://www.reagent.com.cn>  
MSDS No: SCRC CSDS79-10-7 Acrylic acid

### 2. Hazards identification

#### Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 3) Acute toxicity, Oral (Category 4) Acute toxicity, Inhalation (Category 4) Acute toxicity, Dermal (Category 4) Skin corrosion/irritation (Category 1) Serious eye damage/eye irritation (Category 1) Specific target organ toxicity - single exposure (Category 3), Respiratory system Acute aquatic toxicity (Category 1)

#### Label elements

#### Labelling according Regulation (EC) No 1272/2008

##### Pictogram



Signal word: Danger

Hazard statement(s): H226 Flammable liquid and vapour. H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation. H400 Very toxic to aquatic life.  
Precautionary statement(s):

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P273 Avoid release to the environment. 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/shower. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

not applicable

not applicable

#### Other hazards

none

### 3. Composition/information on ingredients

#### Substance/Mixture: Substance

Component	CAS RN	Concentration
Acrylic acid	79-10-7	≤100

### 4. First aid measures

#### Description of first aid measures

##### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

##### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

##### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

##### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

##### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### Indication of any immediate medical attention and special treatment needed

no data available

## 5. Firefighting measures

### Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### Special hazards arising from the substance or mixture

Carbon oxides Flash back possible over considerable distance.

### Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### Further information

No data available

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

### Reference to other sections

For disposal see section 13.

## 7. Handling and storage

### Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

### Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Hygroscopic. Storage class (TRGS 510): Flammable liquids

### Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## 8. Exposure controls/personal protection

### Control parameters

#### Components with workplace control parameters

MAC: No data available

PC-STEL: No data available

TLV-TWA: 2ppm

PC-TWA: No data available

TLV-C: No data available

TLV-STEL: No data available

### Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Control of environmental exposure

Do not let product enter drains.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

a) Appearance	Form: liquid, clear Colour: colourless
b) Odour	Stench.
c) Odour Threshold	No data available
d) pH	2.1(72.06g/L, H2O, 20°C)
e) Melting point/freezing point	13°C
f) Initial boiling point and boiling range	139-141°C/760mmHg
g) Flash point	123.8°F/51°C
h) Evaporation rate	No data available

i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	8 2
k) Vapour pressure	1.33 (39.9°C)
l) Vapour density	2.45
m) Relative density	$\rho$ (20) 1.047-1.054g/mL
n) Water solubility	completely miscible
o) Partition coefficient: noctanol/water	0.161~0.43
p) Auto-ignition temperature	360
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

#### Other safety information

No data available.

### 10. Stability and reactivity

#### Reactivity

No data available

#### Chemical stability

Stable under recommended storage conditions. Contains the following stabiliser(s): Mequinol ( $\geq 0.018$  -  $\leq 0.02$  %)

#### Possibility of hazardous reactions

No data available

#### Conditions to avoid

Heat, flames and sparks.

#### Incompatible materials

Strong oxidizing agents, Strong bases, Oxygen, Polymerizing initiators, Peroxides

#### Hazardous decomposition products

Other decomposition products - No data available In the event of fire: see section 5

### 11. Toxicological information

#### Information on toxicological effects

##### Acute toxicity

LD50 Oral - Rat - 357 mg/kg LC50 Inhalation - Rat - male and female - 4 h -  $> 5.1$  mg/l (OECD Test Guideline 403)

##### Skin corrosion/irritation

Skin - Rabbit Result: Causes severe burns. - 3 min (OECD Test Guideline 404)

##### Serious eye damage/eye irritation

Eyes - Rabbit Result: Corrosive - 18 - 24 h

##### Respiratory or skin sensitization

Guinea pig Did not cause sensitisation on laboratory animals.

##### Germ cell mutagenicity

Laboratory experiments have shown mutagenic effects. Hamster ovary Result: negative Mouse - male and female Result: negative

##### Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Acrylic acid)

##### Reproductive toxicity

No data available

##### Specific target organ toxicity - single exposure

No data available

##### Specific target organ toxicity - repeated exposure

No data available

##### Aspiration hazard

No data available

#### Additional Information

Repeated dose toxicity Rat - male and female - Oral - NOAEL : 83 mg/kg - LOAEL : 250 mg/kg RTECS: AS4375000 burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Liver - Irregularities - Based on Human Evidence

### 12. Ecological information

#### Toxicity

Toxicity to algae static test EC50 - Desmodesmus subspicatus (green algae) - 0.205 mg/l - 72 h Toxicity to bacteria

#### Persistence and degradability

Biodegradability aerobic - Exposure time 28 d Result: 80 - 90 % - Readily biodegradable (OECD Test Guideline 301D)

#### Bioaccumulative potential

No data available

#### Mobility in soil

No data available

#### Results of PBT and vPvB assessment

No data available

#### Other adverse effects

Very toxic to aquatic life. No data available

### 13. Disposal considerations

#### Waste treatment methods

Product Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**14. Transport information****UN number**

ADR/RID:2218

IMDG:2218

IATA:2218

**UN proper shipping name**

ADR/RID:ACRYLIC ACID, STABILIZED

IMDG:ACRYLIC ACID, STABILIZED

IATA:Acrylic acid, stabilized

**Transport hazard class(es)**

ADR/RID:8(3)

IMDG:8(3)

IATA:8(3)

**Packaging group**

ADR/RID:II

IMDG:II

IATA:II

**Environmental hazards**

ADR/RID:yes

IMDG:yes

IATA:yes

**Special precautions for user**

no data available

**15. Regulatory information**

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

No data available

**Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

**16. Other information****Full text of H-Statements referred to under sections 2 and 3.**

H226 Flammable liquid and vapour. H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation. H400 Very toxic to aquatic life.

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sinopharm Chemical Reagent Co.,Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.