

## SAFETY DATA SHEET

According to JIS Z 7253:2012  
**Revision Date** 05-Feb-2019  
 Version 4.01

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product name</b>	Acrylic Acid
<b>Product code</b>	017-00773,011-00776
<b>CAS No</b>	79-10-7
<b>Formula</b>	CH <sub>2</sub> :CHCOOH
<b>Manufacturer</b>	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-5964
<b>Supplier</b>	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-2029
<b>Emergency telephone number</b>	+81-6-6203-3741 / +81-3-3270-8571
<b>Recommended uses and restrictions on use</b>	For research purposes
<b>Announcement of company name change</b>	Company name has changed since April 1, 2018. Former name was "Wako Pure Chemical Industries, Ltd."

## Section 2: HAZARDS IDENTIFICATION

## GHS classification

Classification of the substance or mixture

<b>Flammable liquids</b>	Category 3
<b>Acute toxicity - Oral</b>	Category 4
<b>Acute toxicity - Dermal</b>	Category 3
<b>Acute toxicity - Inhalation (Vapors)</b>	Category 3
<b>Acute toxicity - Inhalation (Dusts/Mists)</b>	Category 4
<b>Skin corrosion/irritation</b>	Category 1
<b>Serious eye damage/eye irritation</b>	Category 1
<b>Specific target organ toxicity (single exposure)</b>	Category 1, Category 2
<b>Category 1</b> respiratory system, kidneys	
<b>Category 2</b> liver	
<b>Specific target organ toxicity (repeated exposure)</b>	Category 1
<b>Category 1</b> respiratory system	
<b>Aquatic environment (acute hazard)</b>	Category 1
<b>Aquatic environment (long-term hazard)</b>	Category 2

## Pictograms



Signal word

Danger

**Hazard statements**

- H226 - Flammable liquid and vapor
- H314 - Causes severe skin burns and eye damage
- H318 - Causes serious eye damage
- H302 - Harmful if swallowed
- H311 - Toxic in contact with skin
- H331 - Toxic if inhaled
- H332 - Harmful if inhaled
- H400 - Very toxic to aquatic life
- H411 - Toxic to aquatic life with long lasting effects
- H370 - Causes damage to the following organs: respiratory system, kidneys
- H371 - May cause damage to the following organs: liver
- H372 - Causes damage to the following organs through prolonged or repeated exposure: respiratory system

**Precautionary statements-(Prevention)**

- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Wear protective gloves/protective clothing/eye protection/face protection
- Use only outdoors or in a well-ventilated area
- Do not breathe dust/fume/gas/mist/vapors/spray
- Avoid release to the environment
- Keep away from heat/sparks/open flames/hot surfaces. — No smoking
- Keep container tightly closed
- Ground/bond container and receiving equipment
- Use explosion-proof electrical/ventilating/lighting/equipment
- Use only non-sparking tools
- Take precautionary measures against static discharge
- Keep cool

**Precautionary statements-(Response)**

- 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
- Call a POISON CENTER or doctor/physician if you feel unwell.
- Wash contaminated clothing before reuse.
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Call a POISON CENTER or doctor/physician if you feel unwell.
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- Rinse mouth.
- Do NOT induce vomiting.
- In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction
- Collect spillage

**Precautionary statements-(Storage)**

- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed

**Precautionary statements-(Disposal)**

- Dispose of contents/container to an approved waste disposal plant

**Others**

**Other hazards** Not available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Single Substance or Mixture** Mixture

**Formula** CH<sub>2</sub>:CHCOOH

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS No.
Acrylic Acid	98.0	72.06	(2)-984	(9)-2	79-10-7

**Impurities and/or Additives :** Stabilizer : Hydroquinone Monomethyl Ether abt. 0.02%

### Section 4: FIRST AID MEASURES

**Inhalation**

Remove to fresh air. If symptoms persist, call a physician.

**Skin contact**

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

**Eye contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

**Ingestion**

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**Protection of first-aiders**

Use personal protective equipment as required.

### Section 5: FIRE FIGHTING MEASURES

**Suitable extinguishing media**

Water spray (fog), Carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder, Sand

**Unsuitable extinguishing media**

No information available

**Special extinguishing method**

No information available

**Specific hazards arising from the chemical product**

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Vapors may form explosive mixtures with air

**Protection of fire-fighters**

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

### Section 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

**Environmental precautions**

To be careful not discharged to the environment without being properly handled waste water contaminated.

**Methods and materials for contaminant and methods and materials for cleaning up**

Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

**Recovery, neutralization**

No information available

**Secondary disaster prevention measures**

Clean contaminated objects and areas thoroughly observing environmental regulations.

## Section 7: HANDLING AND STORAGE

**Handling****Technical measures**

Highly flammable. Avoid contact with high temperature objects, spark, and strong oxidizing agents. Use with local exhaust ventilation.

**Precautions**

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

**Safety handling precautions**

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

**Storage****Safe storage conditions****Storage conditions**

Keep container protect from light, store in well-ventilated place at room temperature (preferably cool). Keep container tightly closed. Store locked up.

**Safe packaging material**

Glass

**Incompatible substances**

Strong oxidizing agents

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls**

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

**Exposure limits**

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
Acrylic Acid 79-10-7	N/A	N/A	TWA: 2 ppm Skin

**Personal protective equipment****Respiratory protection**

gas mask for organic gas

**Hand protection**

Impermeable protective gloves

**Eye protection**

protective eyeglasses or chemical safety goggles

**Skin and body protection**

Long-sleeved work clothes

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**Form****Color**

White - nearly white upon melting Colorless - nearly colorless

**Turbidity**

clear

**Appearance**

mass or liquid

**Odor**

characteristic odor

**pH**

No data available

**Melting point/freezing point**

11-14 °C

**Boiling point, initial boiling point and boiling range**

141.0 °C

**Flash point**

50 °C

Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits	
Upper :	8.0%
Lower :	2.9%
Vapour pressure	No data available
Vapour density	2.49 (air=1)
Specific Gravity / Relative density	1.047-1.055 g/ml (20°C )
Solubilities	water , Ethanol , acetone : Very soluble.
n-Octanol/water partition coefficient:(log Pow)	No data available
Auto-ignition temperature:	428 °C
Decomposition temperature:	No data available
Viscosity (coefficient of viscosity)	No data available
Dynamic viscosity	No data available

## Section 10: STABILITY AND REACTIVITY

### Stability

Stability	May be altered by light.
Reactivity	No data available

### Hazardous reactions

None under normal processing

### Conditions to avoid

Extremes of temperature and direct sunlight, Heat, flames and sparks, static electricity, spark

### Incompatible materials

Strong oxidizing agents

### Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

## Section 11: TOXICOLOGICAL INFORMATION

### Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acrylic Acid	33.5 - 3200 mg/kg( Rat )	300 - 600 mg/kg ( Rat ) , 295 - 950 mg/kg ( Rabbit )	14.4 mg/L ( Rat ) 4 h

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas-source information
Acrylic Acid			Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust-source information	Acute toxicity -inhalation mist-source information
Acrylic Acid			

### Skin irritation/corrosion

Chemical Name	Skin corrosion irritation source information
Acrylic Acid	

### Serious eye damage/ irritation

Chemical Name	Serious eye damage source information
Acrylic Acid	

### Respiratory or skin sensitization

Chemical Name	Respiratory, Skin sensitization source information
Acrylic Acid	

**Reproductive cell mutagenicity**

Chemical Name	Mutagenic source information
Acrylic Acid	

**Carcinogenicity**

Chemical Name	Carcinogenicity source information
Acrylic Acid	

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Acrylic Acid 79-10-7	-	Group 3	-	-

**Reproductive toxicity**

Chemical Name	Reproductive toxicity source information
Acrylic Acid	

**STOT-single exposure**

Chemical Name	STOT -single exposure- source information
Acrylic Acid	

**STOT-repeated exposure**

Chemical Name	STOT -repeated exposure- source information
Acrylic Acid	

**Aspiration hazard**

Chemical Name	Aspiration Hazard source information
Acrylic Acid	Based on the NITE GHS classification results.

## Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity**

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Acrylic Acid	ErC50: <i>Scenedesmus</i> 0.13mg/L 72 h	LC50 : <i>Oncorhynchus mykiss</i> 27 mg/L 96 h	EC50: <i>Daphnia magna</i> 95 mg/L 48 h

**Other data**

Chemical Name	Aquatic toxicity -Acute- source information	Aquatic toxicity -Chronic- source information
Acrylic Acid	E r C50 ( <i>Scenedesmus</i> ): 0.13mg/L/72h(EHC 191、1997)etc.	

**Persistence and degradability**

Degree of decomposition : 68 % by BOD (METI Existing chemical safety inspections)

**Bioaccumulative potential**

No information available

**Mobility in soil**

No information available

**Hazard to the ozone layer**

No information available

**Mobility**

## Section 13: DISPOSAL CONSIDERATIONS

**Waste from residues**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated container and contaminated packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14: TRANSPORT INFORMATION

**ADR/RID****UN number**

UN2218

**Proper shipping name:**

Acrylic acid, stabilized

UN classification	8
Subsidiary hazard class	3
Packing group	II
Marine pollutant	Yes

**IMDG**

UN number	UN2218
Proper shipping name:	Acrylic acid, stabilized
UN classification	8
Subsidiary hazard class	3
Packing group	II
Marine pollutant (Sea)	Yes
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

**IATA**

UN number	UN2218
Proper shipping name:	Acrylic acid, stabilized
UN classification	8
Subsidiary hazard class	3
Packing group	II
Environmentally Hazardous Substance	Yes

<b>Section 15: REGULATORY INFORMATION</b>
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**International Inventories**

EINECS/ELINCS	Listed
TSCA	Listed

**Japanese regulations**

<b>Fire Service Act</b>	Category IV, Class II petroleums, dangerous grade 3 water-soluble
<b>Poisonous and Deleterious Substances Control Law</b>	Deleterious Substances 2nd. Grade
<b>Industrial Safety and Health Act</b>	Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57, Para.1, Enforcement Order Art.18) Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Attached Table No.9)No.2 Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1 Item 4)
<b>Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc</b>	Priority Assessment Chemical Substances (Law Article 2, Para.5)
<b>Regulations for the carriage and storage of dangerous goods in ship</b>	Corrosive Substances (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)
<b>Civil Aeronautics Law</b>	Corrosive Substances (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)
<b>Marine Pollution Prevention Law</b>	Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Y
<b>Pollutant Release and Transfer Register Law</b>	Class 1
<b>Class 1 - No.</b>	4
<b>Water Pollution Control Act</b>	Specified substances(Law Art.2 Para.4, Enforcement Order Art.3-3)
<b>Export Trade Control Order</b>	Not applicable

<b>Section 16: OTHER INFORMATION</b>
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**Key literature references and sources for data etc.**

NITE: National Institute of Technology and Evaluation (JAPAN)  
<http://www.safe.nite.go.jp/japan/db.html>  
IATA dangerous Goods Regulations  
RTECS:Registry of Toxic Effects of Chemical Substances  
Japan Industrial Safety and Health Association GHS Model SDS  
Dictionary of Synthetic Organic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.  
Chemical Dictionary, Kyouritsu Publishing Co., Ltd.  
etc

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.  
GHS Classification is according to JIS Z7252(2014). \*JIS: Japanese Industrial Standards

**Product information**

You might get a product which indicates a former company name, during the period of transition.

**End of Safety Data Sheet**