

SAFETY DATA SHEET

According to JIS Z 7253:2019
Revision date 26-Feb-2024
 Revision Number 3.05

Section 1: PRODUCT AND COMPANY IDENTIFICATION

| | |
|---------------------|-------------------------|
| Product Name | 2-Hydroxyethyl Acrylate |
| Product Code | 086-04422,080-04425 |

| | |
|-----------------------------------|---|
| Supplier | 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 |
| Emergency telephone number | +81-6-6203-3741 / +81-3-3270-8571 |
| Recommended uses | For research use only |
| Restrictions on use | Seek expert judgment when using for purposes other than those recommended. |

Section 2: HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture

| | |
|--|------------|
| Acute toxicity - Oral | Category 4 |
| Acute toxicity - Dermal | Category 2 |
| Acute toxicity - Inhalation (Vapors) | Category 4 |
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 1 |
| Skin sensitization | Category 1 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Category 3 Respiratory irritation, Narcotic effects | |
| Specific target organ toxicity (repeated exposure) | Category 1 |
| Category 1 respiratory system | |
| Acute aquatic toxicity | Category 1 |
| Chronic aquatic toxicity | Category 3 |

Pictograms



Signal word

Danger

Hazard statements

- H315 - Causes skin irritation
- H318 - Causes serious eye damage
- H302 - Harmful if swallowed
- H310 - Fatal in contact with skin
- H332 - Harmful if inhaled
- H335 - May cause respiratory irritation
- H336 - May cause drowsiness or dizziness
- H317 - May cause an allergic skin reaction
- H412 - Harmful to aquatic life with long lasting effects
- H400 - Very toxic to aquatic life
- H372 - Causes damage to the following organs through prolonged or repeated exposure: respiratory system

Precautionary statements-(Prevention)

- Do not get in eyes, on skin, or on clothing
- Wear protective gloves/protective clothing/eye protection/face protection
- Contaminated work clothing should not be allowed out of the workplace
- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Use only outdoors or in a well-ventilated area
- Avoid release to the environment

Precautionary statements-(Response)

- Get medical advice/attention if you feel unwell
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- IF ON SKIN: Gently wash with plenty of soap and water
- Immediately call a POISON CENTER or doctor/physician
- Remove/Take off immediately all contaminated clothing
- If skin irritation or rash occurs: Get medical advice/attention
- Wash contaminated clothing before reuse
- 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
- Collect spillage

Precautionary statements-(Storage)

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

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 Substance

Formula CH₂:CHCOOCH₂CH₂OH

| Chemical Name | Weight-% | Molecular weight | ENCS | ISHL No. | CAS RN |
|-------------------------|----------|------------------|---------|----------|----------|
| 2-Hydroxyethyl acrylate | 95.0 | 116.12 | (2)-995 | 公表 | 818-61-1 |

Note on ISHL No.: * in the table means announced chemical substances.

Impurities and/or Additives: Stabilizer : Hydroquinone Monomethyl Ether abt. 0.03%

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

Carbon dioxide (CO₂), Foam, Extinguishing powder, Sand

Unsuitable extinguishing media

No information available

Specific hazards arising from the chemical product

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Special extinguishing method

No information available

Special protective actions for 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. 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. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity)

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

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Personal protective equipment

Respiratory protection

Protective mask

Hand protection

chemical protective gloves (JIS T 8116)

Eye protection

protective eyeglasses or chemical safety goggles (JIS T 8147)

Skin and body protection

Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

If this product is classified as "Chemical Substances Hazardous to Skin, etc.", use appropriate protective equipment to them.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form

Color

Colorless - slightly yellow

Turbidity

clear

Appearance

liquid

Odor

characteristic odor

Melting point/freezing point

-70 °C

Boiling point, initial boiling point and boiling range

90-92 °C

Flammability

no data available

Evaporation rate:

no data available

Flammability (solid, gas):

no data available

Upper/lower flammability or explosive limits

Upper:

no data available

Lower:

no data available

Flash point

117 °C

Auto-ignition temperature:

348 °C

Decomposition temperature:

no data available

pH

no data available

Viscosity (coefficient of viscosity)

no data available

Dynamic viscosity

no data available

Solubilities

water : Very soluble. Ethanol and acetone : soluble .

n-Octanol/water partition coefficient:(log Pow)

no data available

Vapour pressure

no data available

Specific Gravity / Relative density

1.103 - 1.111 g/mL

Vapour density

4.0

Particle characteristics

no data available

Section 10: STABILITY AND REACTIVITY

Stability

Reactivity

no data available

Chemical stability

May be altered by light.

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 (CO₂)

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-------------------------|-------------------|----------------------|-----------------|
| 2-Hydroxyethyl acrylate | 540 mg/kg (Rat) | 154 mg/kg (Rabbit) | N/A |

| Chemical Name | Acute toxicity -oral- source information | Acute toxicity -dermal- source information | Acute toxicity -inhalation gas-source information |
|-------------------------|---|---|---|
| 2-Hydroxyethyl acrylate | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. | 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 |
|-------------------------|--|--|--|
| 2-Hydroxyethyl acrylate | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. |

Skin irritation/corrosion

| Chemical Name | Skin corrosion/irritation source information |
|-------------------------|---|
| 2-Hydroxyethyl acrylate | Based on the NITE GHS classification results. |

Serious eye damage/ irritation

| Chemical Name | Serious eye damage/irritation source information |
|-------------------------|--|
| 2-Hydroxyethyl acrylate | Based on the NITE GHS classification results. |

Respiratory or skin sensitization

| Chemical Name | Respiratory or Skin sensitization source information |
|-------------------------|--|
| 2-Hydroxyethyl acrylate | Based on the NITE GHS classification results. |

Reproductive cell mutagenicity

| Chemical Name | germ cell mutagenicity source information |
|-------------------------|---|
| 2-Hydroxyethyl acrylate | Based on the NITE GHS classification results. |

Carcinogenicity

| Chemical Name | Carcinogenicity source information |
|-------------------------|---|
| 2-Hydroxyethyl acrylate | Based on the NITE GHS classification results. |

Reproductive toxicity

| Chemical Name | Reproductive toxicity source information |
|-------------------------|---|
| 2-Hydroxyethyl acrylate | Based on the NITE GHS classification results. |

STOT-single exposure

| Chemical Name | STOT -single exposure- source information |
|-------------------------|---|
| 2-Hydroxyethyl acrylate | Based on the NITE GHS classification results. |

STOT-repeated exposure

| Chemical Name | STOT -repeated exposure- source information |
|-------------------------|---|
| 2-Hydroxyethyl acrylate | Based on the NITE GHS classification results. |

Aspiration hazard

| Chemical Name | Aspiration Hazard source information |
|-------------------------|---|
| 2-Hydroxyethyl acrylate | Based on the NITE GHS classification results. |

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical Name | Algae/aquatic plants | Fish | Crustacea |
|-------------------------|----------------------|--|--|
| 2-Hydroxyethyl acrylate | N/A | LC50:Pimephales promelas 4.8 mg/L 96 h | LC50 : 0.78 mg/L 48h (Daphnia magna) |

Other data

| Chemical Name | Short-term (acute) hazardous to the aquatic environment source information | Long-term (chronic) hazardous to the aquatic environment source information |
|-------------------------|--|---|
| 2-Hydroxyethyl acrylate | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. |

| | |
|--------------------------------------|--------------------------|
| Persistence and degradability | No information available |
| Bioaccumulative potential | No information available |
| Mobility in soil | No information available |
| Hazard to the ozone layer | No information available |

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 | UN2810 |
| Proper shipping name: | Toxic liquid, organic, n.o.s. (2-Hydroxyethyl acrylate) |
| UN classification | 6.1 |
| Subsidiary hazard class | |
| Packing group | II |
| Marine pollutant | Yes |

IMDG

| | |
|---|---|
| UN number | UN2810 |
| Proper shipping name: | Toxic liquid, organic, n.o.s. (2-Hydroxyethyl acrylate) |
| UN classification | 6.1 |
| Subsidiary hazard class | |
| 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 | UN2810 |
| Proper shipping name: | Toxic liquid, organic, n.o.s. (2-Hydroxyethyl acrylate) |
| UN classification | 6.1 |
| Subsidiary hazard class | |
| Packing group | II |
| Environmentally Hazardous Substance | Yes |

Section 15: REGULATORY INFORMATION

Japanese regulations

| | |
|--|---|
| Fire Service Act | Category IV, Class III petroleum, dangerous grade 3 water-soluble |
| Poisonous and Deleterious Substances Control Law | Poisonous Substances 2nd. Grade |
| Industrial Safety and Health Act | Mutagens - Existing Chemicals |
| Industrial Safety and Health Act (2024-) | 【2024.4.1~】Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1) |
| Regulations for the carriage and storage of dangerous | Toxic Substances - Poison (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1) |

goods in ship**Civil Aeronautics Law**

Toxic and Infectious Substances (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)

Pollutant Release and Transfer**Register Law**

(2023.4.1-)

Class 2 - No.

6

Export Trade Control Order

Not applicable

| Chemical Name | Poisonous and Deleterious Substances Control Law | Industrial Safety and Health Act Substances (Law Art.57-2) | Pollutant Release and Transfer Register Law (2023.4.1-) |
|--|--|--|---|
| 2-Hydroxyethyl acrylate 818-61-1 (95.0) | Applicable | - | Applicable |

Section 16: OTHER INFORMATION

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

Record of SDS revisions

The following contents were revised. Regulatory information.

Disclaimer

This SDS is according to JIS Z 7253: 2019. 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 Z 7252:2019. *JIS: Japanese Industrial Standards

End of Safety Data Sheet