



SAFETY DATA SHEET

According to JIS Z 7253:2019 Revision date 28-Mar-2024 Revision Number 2.03

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	70% 2-Hydroxyethanesulfonic Acid Solution
Product Code	356-15762,350-15765

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

+81-6-6203-3741 / +81-3-3270-8571 **Emergency telephone number**

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

Skin corrosion/irritation Serious eye damage/eye irritation Category 1

Category 1

Pictograms



Signal word

Danger

Hazard statements

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

Precautionary statements-(Prevention)

- Do not breathe dust/fume/gas/mist/vapors/spray
- · Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection

Precautionary statements-(Response)

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue
- Immediately call a POISON CENTER or doctor/physician
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- · Wash contaminated clothing before reuse
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Precautionary statements-(Storage)

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 Mixture

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
2-Hydroxyethanesulfonic acid	69-73	126.13	(2)-1645	公表	107-36-8
Water	27-31	18.02	-	-	7732-18-5

Note on ISHL No.:

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 (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 contaminent and methods and materials for cleaning up

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

Recoverly, neutralization

No information available

Secondary disaster prevention measures

^{*} in the table means announced chemical substances.

Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: HANDLING AND STORAGE

Handling

Technical measures

Avoid contact with alkaline substances. 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

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.

Safe packaging material

Glass

Incompatible substances alkaline substances

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 handand 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

Wash contaminated clothing before reuse.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form

Color Colorless - pale yellow

Appearance liquid

Odor
Melting point/freezing point
Boiling point, initial boiling point and boiling range
Flammability
Evaporation rate:
no data available

Upper/lower flammability or explosive limits

Upper:
Lower:
no data available
no data available
no data available
Auto-ignition temperature:
no data available
no data available

Decomposition temperature: no data available no data available Viscosity (coefficient of viscosity) no data available **Dvnamic viscosity** no data available **Solubilities** water: very soluble. n-Octanol/water partition coefficient:(log Pow) no data available no data available Vapour pressure Specific Gravity / Relative density 1.38g/mL no data available Vapour density

Section 10: STABILITY AND REACTIVITY

no data available

Stability

Reactivity no data available **Chemical stability** May be altered by light.

Hazardous reactions

Particle characteristics

None under normal processing

Conditions to avoid

Extremes of temperature and direct sunlight

Incompatible materials

alkaline substances

Hazardous decomposition products

Carbon monooxide (CO), Carbon dioxide (CO2), Sulfur oxides (SOx)

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity no data available

 Skin irritation/corrosion
 no data available

 Serious eye damage/ irritation
 no data available

 Respiratory or skin sensitization
 no data available

 Reproductive cell mutagenicity
 no data available

 Carcinogenicity
 no data available

Reproductive toxicityno data availableSTOT-single exposureno data availableSTOT-repeated exposureno data availableAspiration hazardno data available

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity no data available

Other data no data available

Persistence and degradability Bioaccumulative potential Mobility in soil

Hazard to the ozone layer

No information available No information available No information available 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 UN3265

Proper shipping name: Corrosive liquid, acidic, organic, n.o.s. (2-Hydroxyethanesulfonic acid Solution)

UN classfication

Subsidiary hazard class

Packing group

Marine pollutant Not applicable

IMDG

UN number UN3265

Proper shipping name: Corrosive liquid, acidic, organic, n.o.s. (2-Hydroxyethanesulfonic acid Solution)

UN classfication

Subsidiary hazard class

Packing group Ш

Marine pollutant (Sea) Not applicable

Transport in bulk according to No information available

Annex II of MARPOL 73/78 and

the IBC Code

IATA

UN number UN3265

Proper shipping name: Corrosive liquid, acidic, organic, n.o.s. (2-Hydroxyethanesulfonic acid Solution)

UN classfication

Subsidiary hazard class

Packing group Ш

Environmentally Hazardous Not applicable

Substance

Section 15: REGULATORY INFORMATION

Japanese regulations

Fire Service Act Not applicable **Poisonous and Deleterious** Not applicable

Substances Control Law

Industrial Safety and Health Act Not applicable

Industrial Safety and Health Act (

2024~)

Regulations for the carriage

and storage of dangerous

goods in ship **Civil Aeronautics Law** 【2024.4.1~】Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1)

Corrosive Substances (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)

Corrosive Substances (Ordinance Art.194, MITL Nortification for Air Transportation of

Explosives etc., Attached Table 1)

Pollutant Release and Transfer Not applicable

Register Law

(2023.4.1-)

Export Trade Control Order Not applicable

Section 16: OTHER INFORMATION

Key literature references and

sources for data etc.

NITE: National Institute of Technology and Evaluation (JAPAN) ://www.chem-info.nite.go.jp/chem/chrip/chrip_search/systemTop

IATA dangerous Goods Regulations

RTECS:Registry of Toxic Effects of Chemical Substances Japan Industrial Safety and Health Association GHS Model SDS Dictionary of Synthetic Oraganic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd. Chemical Dictionary, Kyouritsu Publishing Co., Ltd.

Record of SDS revisions Disclaimer

The following contents were revised. Regulatory information.

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