

## SAFETY DATA SHEET

According to JIS Z 7253:2019  
**Revision date** 25-Mar-2024  
 Revision Number 2.03

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	2,2'-Azobis[2-methyl-N-(2-hydroxyethyl)propionamide]
<b>Product Code</b>	013-19342,017-19345

<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</b>	For research use only
<b>Restrictions on use</b>	Seek expert judgment when using for purposes other than those recommended.

## Section 2: HAZARDS IDENTIFICATION

**GHS classification****Classification of the substance or mixture****Self-heating substances and mixtures**

Category 1

**Skin sensitization**

Category 1

**Chronic aquatic toxicity**

Category 3

**Pictograms****Signal word**

Danger

**Hazard statements**

- H251 - Self-heating: may catch fire
- H317 - May cause an allergic skin reaction
- H412 - Harmful to aquatic life with long lasting effects

**Precautionary statements-(Prevention)**

- Avoid breathing dust/fume/gas/mist/vapors/spray
- Contaminated work clothing should not be allowed out of the workplace
- Avoid release to the environment
- Keep cool. Protect from sunlight
- Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary statements-(Response)**

- IF ON SKIN: Wash with plenty of soap and water
- If skin irritation or rash occurs: Get medical advice/attention
- Wash contaminated clothing before reuse

**Precautionary statements-(Storage)**

- Maintain air gap between stacks/pallets
- Store away from other materials

**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** C<sub>12</sub>H<sub>24</sub>N<sub>4</sub>O<sub>4</sub>

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
2,2'-Azobis[2-methyl-N-(2-hydroxyethyl)propionamide]	98.0	288.34	(2)-3578	2-(6)-1209	61551-69-7

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

### 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

#### 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

Sweep up and gather scattered particles, and collect it in an empty airtight container.

**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**

Avoid contact with 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**

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

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

Keep container protect from light tightly closed. Store in a cool (2-10 °C) place.

**Safe packaging material**

Polyethylene

**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**

Dust mask ( JIS T 8151 )

**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**

White - slightly yellow

**Appearance**

crystals - powder

**Odor**

no data available

**Melting point/freezing point**

no data available

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

no data available

**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	no data available
Auto-ignition temperature:	no data available
Decomposition temperature:	no data available
pH	no data available
Viscosity (coefficient of viscosity)	no data available
Dynamic viscosity	no data available
Solubilities	methanol : soluble .
n-Octanol/water partition coefficient:(log Pow)	no data available
Vapour pressure	no data available
Specific Gravity / Relative density	0.476
Vapour density	no data available
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
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides (NO <sub>x</sub> )

## Section 11: TOXICOLOGICAL INFORMATION

### Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2,2'-Azobis[2-methyl-N-(2-hydroxyethyl)propionamide]	>2,000 mg/kg (rat male)	>2,000 mg/kg (rat)	N/A

Skin irritation/corrosion no data available

Chemical Name	Skin corrosion/irritation source information
2,2'-Azobis[2-methyl-N-(2-hydroxyethyl)propionamide]	Skin irritation; rabbit; Mild(Index=<0.1).

Serious eye damage/ irritation no data available

Respiratory or skin sensitization no data available

Chemical Name	Respiratory or Skin sensitization source information
2,2'-Azobis[2-methyl-N-(2-hydroxyethyl)propionamide]	Skin sensitization : There is a case to be sensitized by skin contact.

Reproductive cell mutagenicity no data available

Chemical Name	germ cell mutagenicity source information
2,2'-Azobis[2-methyl-N-(2-hydroxyethyl)propionamide]	Reverse mutation assay in S.typhimurium and E.coli Negative Chromosomal aberration test in cultured mammalian cells Negative

Carcinogenicity no data available

Reproductive toxicity no data available

STOT-single exposure no data available

STOT-repeated exposure no data available

Chemical Name	STOT -repeated exposure- source information
2,2'-Azobis[2-methyl-N-(2-hydroxyethyl)propionamide]	28-day Repeated Dose Toxicity Test : Oral rat NOEL 40mg/kg/day

Aspiration hazard

no data available

## Section 12: ECOLOGICAL INFORMATION

### Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
2,2'-Azobis[2-methyl-N-(2-hydroxyethyl)propionamide]	<i>EbC50 : Scenedesmus subspicatus</i> 52 mg/L 72 h <i>ErC50 : Scenedesmus subspicatus</i> >69 mg/L 72 h	<i>LC50 : oncorhynchus mykiss</i> >100 mg/L 96 h <i>EC50 : bacteria</i> >1000 mg/L 3 h	<i>EC50 : daphnia magna</i> >100 mg/L 48 h

Other data

no data available

**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** UN3088  
**Proper shipping name:** Self-heating solid, organic, n.o.s. (2,2'-Azobis[2-methyl-N-(2-hydroxyethyl)propionamide])  
**UN classification** 4.2  
**Subsidiary hazard class**  
**Packing group** II  
**Marine pollutant** Not applicable

### IMDG

**UN number** UN3088  
**Proper shipping name:** Self-heating solid, organic, n.o.s. (2,2'-Azobis[2-methyl-N-(2-hydroxyethyl)propionamide])  
**UN classification** 4.2  
**Subsidiary hazard class**  
**Packing group** II  
**Marine pollutant (Sea)** Not applicable  
**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** No information available

### IATA

**UN number** UN3088  
**Proper shipping name:** Self-heating solid, organic, n.o.s. (2,2'-Azobis[2-methyl-N-(2-hydroxyethyl)propionamide])  
**UN classification** 4.2  
**Subsidiary hazard class**  
**Packing group** II  
**Environmentally Hazardous Substance** Not applicable

## Section 15: REGULATORY INFORMATION

### Japanese regulations

<b>Fire Service Act</b>	Not applicable
<b>Poisonous and Deleterious Substances Control Law</b>	Not applicable
<b>Industrial Safety and Health Act</b>	Not applicable
<b>Industrial Safety and Health Act (2024-)</b>	【2024.4.1~】 Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1)
<b>Regulations for the carriage and storage of dangerous goods in ship</b>	Substances liable to spontaneous combustion.
<b>Civil Aeronautics Law</b>	Substances liable to spontaneous combustion.
<b>Pollutant Release and Transfer Register Law (2023.4.1-)</b>	Not applicable
<b>Export Trade Control Order</b>	Not 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 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**