

SAFETY DATA SHEET

According to JIS Z 7253:2012
Revision Date 20-Apr-2018
 Version 4

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product name	VA-044
Product code	920-11326,920-11360,923-42424,929-42404
CAS No	
Formula	C ₁₂ H ₂₂ N ₆ ,2(HCl),[C ₁₂ H ₂₄ Cl ₂ N ₆]
Manufacturer	FUJIFILM Wako Chemicals U.S.A. Corporation 1600 Bellwood Road Richmond, VA 23237, U.S.A. Phone: +1-804-271-7677 Fax: +1-804-271-7791
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	Sales Department +81-3-3244-0321
Recommended uses and restrictions on use	No information available

Section 2: HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture

Serious eye damage/eye irritation

Category 2A

Aquatic environment (long-term hazard)

Category 3

Pictograms



Signal word

Warning

Hazard statements

H319 - Causes serious eye irritation

H412 - Harmful to aquatic life with long lasting effects

Precautionary statements-(Prevention)

- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection
- Avoid release to the environment

Precautionary statements-(Response)

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.

Precautionary statements-(Storage)

- Not applicable

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 C₁₂H₂₂N₆,2(HCl),[C₁₂H₂₄Cl₂N₆]

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS No.
2,2'-Azobis[2-(2-imidazolylpropane)dihydrochloride	>=97.5	323.27	5-5870,1-215	8-(2)-1271	27776-21-2

Impurities and/or Additives : Not applicable

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

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.

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. See Section 12 for additional ecological information.

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

Container containing the recovered material is distinguished from the other garbage and store in a cool, dark place without sealed until processing. Use a secure tool that does not generate a spark.

Section 7: HANDLING AND STORAGE

Handling

Technical measures

Avoid contact with strong oxidizing agents. Use with local exhaust ventilation.

Precautions

Avoid being incompatible with strong acids, especially strong oxidizing agent (nitric acid, etc.). When handling, to pay particular attention to static electricity ignition source, such as shock spark. Avoid long-term and repeated exposure. Pay attention not to give shock.

Safety handling precautions

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

Storage

Safe storage conditions

Storage conditions

Store away from sunlight in a well-ventilated dry place (lower than 40 °C = 104°F). Internal pressure of the container is increased by the nitrogen gas released by thermal decomposition. Do not keep the container sealed. Note in humidity.

Safe packaging material

Polyethylene, Carton box, Paper box

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

Hand protection

Protection 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 - pale yellow

Appearance

crystals or crystalline powder

Odor

Slightly characteristic odor

pH

No data available

Melting point/freezing point	188-193(dec.) °C
Boiling point, initial boiling point and boiling range	No data available
Flash point	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
Vapour pressure	No data available
Vapour density	No data available
Specific Gravity / Relative density	No data available
Solubilities	water : free soluble . methanol : sparingly soluble . Ethanol : very slightly soluble. acetone , toluene : insoluble .
n-Octanol/water partition coefficient:(log Pow)	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	140(SADT) °C
Viscosity (coefficient of viscosity)	No data available
Dynamic viscosity	No data available

Section 10: STABILITY AND REACTIVITY

Stability

Stability	Stable under recommended storage conditions.
Reactivity	No data available

Hazardous reactions

Decompose at an accelerating pace and discharge nitrogen gas. May cause runaway reaction by heat or sunlight because of self-reactivity. Decompose gradually if stored it higher than 30°C.

Conditions to avoid

Extremes of temperature and direct sunlight

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Halides, nitrogen gas

Other Information	The salt of the friction sensitivity insoluble in water is formed by combination with the persulfate.
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Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2,2'-Azobis[2-(2-imidazolin-2-yl)propane]dihydrochloride	3.2g/kg(Rat-male), 2.8g/kg(Rat-female)	N/A	N/A

Skin irritation/corrosion

Chemical Name	Skin corrosion irritation source information
2,2'-Azobis[2-(2-imidazolin-2-yl)propane]dihydrochloride	Skin irritation; rabbit; Mild.

Serious eye damage/ irritation

Chemical Name	Serious eye damage source information
2,2'-Azobis[2-(2-imidazolin-2-yl)propane]dihydrochloride	Causes serious eye irritation

Respiratory or skin sensitization

Chemical Name	Respiratory, Skin sensitization source information
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2,2'-Azobis[2-(2-imidazolin-2-yl)propane]dihydrochloride	Skin sensitization: Sensitization was accepted by humans.
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Reproductive cell mutagenicity

Chemical Name	Mutagenic source information
2,2'-Azobis[2-(2-imidazolin-2-yl)propane]dihydrochloride	Reverse mutation assay in <i>S.typhimurium</i> and <i>E.coli</i> ; Weak positive (specific activity value: 0.15X103 mutant colony number/mg)

Carcinogenicity No data available

Reproductive toxicity No data available

STOT-single exposure No data available

STOT-repeated exposure No data available

Aspiration hazard No data available

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
2,2'-Azobis[2-(2-imidazolin-2-yl)propane]dihydrochloride	N/A	LC50 : 250mg/L(48h)(<i>Oryzias latipes</i>)	EC50: 32mg/L(48h)(<i>Daphnia magna</i>)

Other data No data available

Persistence and degradability No information available

Bioaccumulative potential (Carp): Low accumulation 50µg/L: <2.3 times 5µg/L:<2.7 times

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 Not regulated

UN number -

Proper shipping name:

UN classification

Subsidiary hazard class

Packing group

Marine pollutant Not applicable

IMDG Not regulated

UN number -

Proper shipping name:

UN classification

Subsidiary hazard class

Packing group

Marine pollutant (Sea) Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

IATA	Not regulated
UN number	-
Proper shipping name:	
UN classification	
Subsidiary hazard class	
Packing group	
Environmentally Hazardous Substance	Not applicable

Section 15: REGULATORY INFORMATION

International Inventories

EINECS/ELINCS	Listed
TSCA	Listed

Japanese regulations

Fire Service Act	Not applicable
Poisonous and Deleterious Substances Control Law	Not applicable
Industrial Safety and Health Act	Not applicable
Regulations for the carriage and storage of dangerous goods in ship	Not applicable
Civil Aeronautics Law	Not applicable
Marine Pollution Prevention Law	Not applicable
Pollutant Release and Transfer Register Law	Not applicable
Water Pollution Control Act	Not applicable
Air Pollution Control Law	Not applicable
Soil Contamination Control Law	Not applicable
Offensive Odor Control Law	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
 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

End of Safety Data Sheet