

SAFETY DATA SHEET

Revision Date 8-2-2019

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product name	V-501
Product code	921-41200,923-41209
CAS No	

Manufacturer FUJIFILM Wako Pure Chemical Corporation
1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan
Phone: +81-6-6203-3741
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Supplier FUJIFILM Wako Chemicals USA Corporation
1600 Bellwood Rd. Richmond, VA 23237 Phone: (804) 714-1900

Emergency telephone number CHEMTREC (800) 424-9300 contract # 24004

Recommended uses and restrictions on use No information available

Section 2: HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture
Self-reactive substances and mixtures

Type E

Pictograms



Signal word

Warning

Hazard statements

H242 - Heating may cause a fire

Precautionary statements-(Prevention)

- Keep away from heat/sparks/open flames/hot surfaces. — No smoking
- Keep/Store away from clothing/combustible materials
- Keep only in original container
- Wear protective gloves/protective clothing/eye protection/face protection

Precautionary statements-(Response)

- In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary statements-(Storage)

- Store in a well-ventilated place. Keep cool
- 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

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS No.
4,4'-Azobis(4-cyanovaleric acid)	>=84	280.28	(2)-2794	N/A	2638-94-0
Water	10-15	18.02	N/A	N/A	7732-18-5

Impurities and/or Additives : Not applicable**Section 4: FIRST AID MEASURES****Inhalation**

Move 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 people access to the involved area, for example, by using a rope. While working, wear appropriate protective equipment to avoid adhering to the skin, or inhaling the gas. Work from windward side. Avoid working positions downwind.

Environmental precautions

Be careful not to discharge to the environment without properly treating contaminated wastewater. See Section 12 for additional ecological information.

Methods and materials for containment 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

Incompatible with strong acids, especially strong oxidizing agents (nitric acid, etc.). When handling, pay particular attention to static electricity ignition source, such as shock spark. Avoid long-term and repeated exposure. Avoid 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 cool (Below 20 °C = 68°F) well-ventilated dry place. Internal pressure of the container is increased by nitrogen gas released by thermal decomposition. Do not keep the container sealed.

Safe packaging material

Carton box, Fiber drums, 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 a 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

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

Appearance

powder

Odor

Odorless

pH

No data available

Melting point/freezing point

120-123(dec.) °C

Boiling point, initial boiling point and boiling range

503.6±50deg.(760Torr) °C

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	1.23±0.1g/cm ³ (20deg.,760Torr)
Solubilities	water : practically insoluble . Ethanol , ether , formamide : freely soluble methanol : soluble . toluene : insoluble .
n-Octanol/water partition coefficient:(log Pow)	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	60(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 20°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), nitrogen gas

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
4,4'-Azobis(4-cyanovaleric acid)	> 5,000 mg/kg (Mouse)	> 1,000 mg/kg (Rat)	> 3.55 mg/L 4hr (Rat)

Skin irritation/corrosion

Chemical Name	Skin corrosion irritation source information
4,4'-Azobis(4-cyanovaleric acid)	Skin rabbit No irritant

Serious eye damage/ irritation

Chemical Name	Serious eye damage source information
4,4'-Azobis(4-cyanovaleric acid)	Eye rabbit moderate

Respiratory or skin sensitization

No data available

Reproductive cell mutagenicity

Chemical Name	Mutagenic source information
4,4'-Azobis(4-cyanovaleric acid)	Reverse mutation assay in S.typhimurium and E.coli Negative

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	No information available
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	UN3230
Proper shipping name:	SELF-REACTIVE SOLID TYPE F (4,4'-Azobis(4-cyanovaleric acid))
UN classification	4.1
Subsidiary hazard class	
Packing group	
Marine pollutant	Not applicable

IMDG

UN number	UN3230
Proper shipping name:	SELF-REACTIVE SOLID TYPE F (4,4'-Azobis(4-cyanovaleric acid))
UN classification	4.1
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

UN number	UN3230
Proper shipping name:	SELF-REACTIVE SOLID TYPE F (4,4'-Azobis(4-cyanovaleric acid))
UN classification	4.1
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	Flammable Solids - Flammable Solids (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)

Civil Aeronautics Law	Flammable Solids (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)
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Marine Pollution Prevention Law	Not applicable
Pollutant Release and Transfer Register Law	Not applicable

Water Pollution Control Act	Harmful Substances (Law Art.2, Enforcement Order Art.2, Ordinance Designating Wastewater Standards Art.1)
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Air Pollution Control Law	Not applicable
Soil Contamination Control Law	Designated Hazardous Substances
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.

End of Safety Data Sheet