



SAFETY DATA SHEET

According to JIS Z 7253:2019 **Revision date** 26-Feb-2024 Revision Number 2.05

Category 4

Category 2

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	2-lodoethanol
Product Code	094-03802
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 <u>Classification of the substance or mixture</u> Flammable liquids Acute toxicity - Oral

Pictograms



Danger

Hazard statements

H227 - Combustible liquid

H300 - Fatal if swallowed

Precautionary statements-(Prevention)

- · Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- Wear protective gloves/protective clothing/eye protection/face protection
- Precautionary statements-(Response)
 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 - Rinse mouth
 - · In case of fire: Use suitable extinguishing media for extinction
- Precautionary statements-(Storage)
 - Store locked up
 - Store in a well-ventilated place. Keep cool
- 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

ICH2CH2OH

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
2-lodoethanol	98.0	171.96	N/A	N/A	624-76-0
Copper	-	63.546	-	N/A	7440-50-8

Note on ISHL No.:

* in the table means announced chemical substances.

Impurities and/or Additives:

Stabilizer: Copper, Wire

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. Vapors may form explosive mixtures with air

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

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. 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.

Storage

Inc

Safe storage conditions

Storage conditions	Keep container protect from light, store in well-ventilated place at room temperature (preferably cool). Keep container tightly
Safe packaging material compatible substances	closed. Glass 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 handand eye-wash facility. And display their position clearly.

Exposure limits

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
Copper	N/A	N/A	TWA: 0.2 mg/m ³ fume
7440-50-8			_

Personal protective equipment

Respiratory protection Hand protection Eye protection Skin and body protection gas mask for organic gas (JIS T 8152) chemical protective gloves (JIS T 8116) protective eyeglasses or chemical safety goggles (JIS T 8147) 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 Turbidity Appearance Odor Melting point/freezing point Boiling point, initial boiling point and boiling range slightly yellow - yellow brown clear liquid characteristic odor no data available 175 °C (dec.) Flammability **Evaporation rate:** Flammability (solid, gas): Upper/lower flammability or explosive limits Upper: Lower: Flash point Auto-ignition temperature: **Decomposition temperature:** pН Viscosity (coefficient of viscosity) **Dynamic viscosity** Solubilities n-Octanol/water partition coefficient:(log Pow) Vapour pressure Specific Gravity / Relative density Vapour density **Particle characteristics**

no data available no data available no data available no data available 65 °C no data available Ethanol and acetone : Very soluble. water : freely soluble . no data available no data available 2.21 g/m L (20°C) no data available no data available

Section 10: STABILITY AND REACTIVITY

Combustible liquid

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 monooxide (CO), Carbon dioxide (CO2), Halides, Metal oxides

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity			
Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-lodoethanol	50 mg/kg (Rat)	N/A	N/A
Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
Copper	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	Acute toxicity -inhalation dust-	Acute toxicity -inhalation mist-
	vapor- source information	source information	source information
Coppol			Based on the NITE GHS classification results.

Skin irritation/corrosion

Chemical Name	Skin corrosion/irritation source information	
Copper	Based on the NITE GHS classification results.	
Serious eye damage/ irritation		
Chemical Name	Serious eye damage/irritation source information	
Copper	Based on the NITE GHS classification results.	
Respiratory or skin sensitization		
Chemical Name	Respiratory or Skin sensitization source information	
Copper	Based on the NITE GHS classification results.	

Reproductive cell mutagenicity

Chemical Name	germ cell mutagencity source information
Copper	Based on the NITE GHS classification results.
Carcinogenicity	
Chemical Name	Carcinogenicity source information
Copper	Based on the NITE GHS classification results.
Reproductive toxicity	
Chemical Name	Reproductive toxicity source information
Copper	Based on the NITE GHS classification results.
STOT-single exposure	
Chemical Name	STOT -single exposure- source information
Copper	Based on the NITE GHS classification results.
STOT-repeated exposure	·
Chemical Name	STOT -repeated exposure- source information
Copper	Based on the NITE GHS classification results.
Aspiration hazard	
Chemical Name	Aspiration Hazard source information
Copper	Based on the NITE GHS classification results.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Copper	EC50:Pseudokirchneriella	LC50:Pimephales promelas	EC50:Daphnia magna
	subcapitata	0.2 mg/L 96 h	0.03 mg/L 48 h
	0.031 - 0.054 mg/L 96 h static	LC50:Oncorhynchus mykiss	
	EC50:Pseudokirchneriella	0.052 mg/L 96 h	
	subcapitata	LC50:Cyprinus carpio	
	0.0426 - 0.0535 mg/L 72 h	0.8 mg/L 96 h	
	static	-	

Other data

Chemical Name	Short-term (acute) hazardous to the	Long-term (chronic) hazardous to the
	aquatic environment source information	aquatic environment source information
Copper	Based on the NITE GHS classification	Based on the NITE GHS classification
	results.	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 Proper shipping name: UN2810 Toxic liquid, organic, n.o.s. (2-lodoethanol)

UN classfication	6.1
Subsidiary hazard class Packing group Marine pollutant	II Not applicable
IMDG	
UN number	UN2810
Proper shipping name:	Toxic liquid, organic, n.o.s. (2-lodoethanol)
UN classfication	6.1
Subsidiary hazard class	
Packing group	 Naterplieshie
Marine pollutant (Sea)	Not applicable
Transport in bulk according to	No information available
Annex II of MARPOL 73/78 and	
the IBC Code	
UN number	UN2810
Proper shipping name:	Toxic liquid, organic, n.o.s. (2-lodoethanol)
UN classification	6.1
Subsidiary hazard class	
Packing group	II
Environmentally Hazardous	Not applicable
Substance	

Section 15: REGULATORY INFORMATION

Japanese regulations			
Fire Service Act	Category IV, Class II petroleums, dangerous grade 3		
Poisonous and Deleterious	Not applicable		
Substances Control Law			
Industrial Safety and Health Act Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57)			
	Notifiable Substances (Law Art.57-2)		
	Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1 Item 4)		
Industrial Safety and Health Act ([2024.4.1~] Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1)		
<u>2024~)</u>			
Regulations for the carriage	Toxic Substances - Poison (Ordinance Art.3, Ministry of Transportation Ordinance		
and storage of dangerous	Regarding Transport by Ship and Storage, Attached Table 1)		
goods in ship			
Civil Aeronautics Law	Toxic and Infectious 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		

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-lodoethanol 624-76-0 (98.0)	-	Applicable	-
Copper 7440-50-8(-)	-	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 Oraganic 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