

## SAFETY DATA SHEET

According to JIS Z 7253:2019  
**Issue Date** 02-May-2025  
 Revision Number 10.07

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	Wijs Reagent (0.1mol/L Iodine Monochloride Acetic Acid Solution)
<b>Product Code</b>	230-00945

**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

## Classification of the substance or mixture

## Flammable liquids

Category 3

## Acute toxicity - Dermal

Category 4

## Skin corrosion/irritation

Category 1

## Serious eye damage/eye irritation

Category 1

## Specific target organ toxicity (single exposure)

Category 1

Category 1 blood, respiratory system

## Acute aquatic toxicity

Category 3

## Pictograms



## Signal word

Danger

## Hazard statements

- H226 - Flammable liquid and vapour
- H314 - Causes severe skin burns and eye damage
- H318 - Causes serious eye damage
- H312 - Harmful in contact with skin
- H402 - Harmful to aquatic life
- H370 - Causes damage to the following organs: blood, respiratory system

## Precautionary statements-(Prevention)

- Wear protective gloves/protective clothing/eye protection/face protection
- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Avoid release to the environment
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- Keep container tightly closed

- Ground/bond container and receiving equipment
- Use explosion-proof electrical/ ventilating / lighting / equipment
- Use only non-sparking tools
- Take precautionary measures against static discharge

**Precautionary statements-(Response)**

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- Immediately call a POISON CENTER or doctor/physician
- Call a POISON CENTER or doctor/physician if you feel unwell
- Wash contaminated clothing before reuse
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- 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
- 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** Mixture

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
Acetic Acid	98.5	60.05	(2)-688	*	64-19-7
Iodine monochloride	1.5	162.36	(1)-642	*	7790-99-0

**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**

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. 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 contaminant and methods and materials for cleaning up

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

#### 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

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use with local exhaust ventilation. 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

#### 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

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

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
Acetic Acid	TWA: 10 ppm OEL	N/A	STEL: 15 ppm

64-19-7	TWA: 25 mg/m <sup>3</sup> OEL		TWA: 10 ppm
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Chemical Name	Concentration standard value set by the Minister of Health, Labor and Welfare (8hr)	Concentration standard value set by the Minister of Health, Labor and Welfare (Short-Term)
Acetic Acid 64-19-7	N/A	15 ppm

**Personal protective equipment**

<b>Respiratory protection</b>	gas mask for organic gas ( JIS T 8152 )
<b>Hand protection</b>	chemical protective gloves ( JIS T 8116 )
<b>Eye protection</b>	protective eyeglasses or chemical safety goggles (JIS T 8147)
<b>Skin and body protection</b>	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

Data except for the appearance, the odor and pH is described as a Acetic acid.

**Form**

<b>Color</b>	yellow brown - reddish brown
<b>Turbidity</b>	clear
<b>Appearance</b>	liquid

**Odor**

characteristic odor

**Melting point/freezing point**

17 °C

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

118 °C

**Flammability**

Flammable liquid and vapor

**Evaporation rate:**

no data available

**Flammability (solid, gas):**

no data available

**Upper/lower flammability or explosive limits****Upper:**

17vol%

**Lower:**

6.0vol%

**Flash point**

no data available

**Auto-ignition temperature:**

485 °C

**Decomposition temperature:**

no data available

**pH**

acidic

**Viscosity (coefficient of viscosity)**

no data available

**Dynamic viscosity**

no data available

**Solubilities**

water : miscible . Alcohols : soluble . acetic acid and Ethanol :  
at the rate of any miscible .

**n-Octanol/water partition coefficient:(log Pow)**

-0.17

**Vapour pressure**

1.52

**Specific Gravity / Relative density**

no data available

**Vapour density**

2.1

**Particle characteristics**

no data available

## Section 10: STABILITY AND REACTIVITY

**Stability**

<b>Reactivity</b>	no data available
<b>Chemical stability</b>	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 monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Halides**Section 11: TOXICOLOGICAL INFORMATION**

\*NITE: National Institute of Technology and Evaluation (JAPAN)

[https://www.chem-info.nite.go.jp/en/chem/chrip/chrip\\_search/srhInput](https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhInput)**Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetic Acid	3310 mg/kg ( Rat )	1060 mg/kg ( Rabbit )	N/A

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
Acetic Acid	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 vapor- source information	Acute toxicity -inhalation dust- source information	Acute toxicity -inhalation mist- source information
Acetic Acid	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

**Skin irritation/corrosion**

Chemical Name	Skin corrosion/irritation source information
Acetic Acid	Based on the NITE GHS classification results.

**Serious eye damage/ irritation**

Chemical Name	Serious eye damage/irritation source information
Acetic Acid	Based on the NITE GHS classification results.

**Respiratory or skin sensitization**

Chemical Name	Respiratory or Skin sensitization source information
Acetic Acid	Based on the NITE GHS classification results.

**Reproductive cell mutagenicity**

Chemical Name	germ cell mutagenicity source information
Acetic Acid	Based on the NITE GHS classification results.

**Carcinogenicity**

Chemical Name	Carcinogenicity source information
Acetic Acid	Based on the NITE GHS classification results.

**Reproductive toxicity**

Chemical Name	Reproductive toxicity source information
Acetic Acid	Based on the NITE GHS classification results.

**STOT-single exposure**

Chemical Name	STOT -single exposure- source information
Acetic Acid	Based on the NITE GHS classification results.

**STOT-repeated exposure**

Chemical Name	STOT -repeated exposure- source information
Acetic Acid	Based on the NITE GHS classification results.

**Aspiration hazard**

Chemical Name	Aspiration Hazard source information
Acetic Acid	Based on the NITE GHS classification results.

**Section 12: ECOLOGICAL INFORMATION**

\*NITE: National Institute of Technology and Evaluation (JAPAN)

[https://www.chem-info.nite.go.jp/en/chem/chrip/chrip\\_search/srhInput](https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhInput)

**Ecotoxicity**

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Acetic Acid	N/A	LC50 : <i>Pimephales promelas</i> 79 mg/L 96 h	EC50 : <i>Daphnia magna</i> 65000 ug/L 48 h

**Other data**

Chemical Name	Short-term (acute) hazardous to the aquatic environment source information	Long-term (chronic) hazardous to the aquatic environment source information
Acetic Acid	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

<b>Persistence and degradability</b>	Degree of decomposition: 74 % by BOD (METI Existing chemical safety inspections)
<b>Bioaccumulative potential</b>	No information available
<b>Mobility in soil</b>	No information available
<b>Hazard to the ozone layer</b>	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	UN2789
Proper shipping name:	Acetic acid solution
UN classification	8
Subsidiary hazard class	3
Packing group	II
Marine pollutant	Not applicable

**IMDG**

UN number	UN2789
Proper shipping name:	Acetic acid solution
UN classification	8
Subsidiary hazard class	3
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	UN2789
Proper shipping name:	Acetic acid solution
UN classification	8
Subsidiary hazard class	3
Packing group	II
Environmentally Hazardous Substance	Not applicable

**Section 15: REGULATORY INFORMATION****Japanese regulations**

<b>Fire Service Act</b>	Category IV, Class II petroleum, dangerous grade 3 water-soluble
<b>Poisonous and Deleterious Substances Control Law</b>	Not applicable
<b>Industrial Safety and Health Act</b>	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) 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)
<b>Regulations for the carriage and storage of dangerous goods in ship</b>	Corrosive Substances (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)
<b>Civil Aeronautics Law</b>	Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Z
<b>Marine Pollution Prevention Law</b>	Not applicable
<b>Pollutant Release and Transfer Register Law (2023.4.1-)</b>	

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-)
Acetic Acid 64-19-7 ( 98.5 )	-	Applicable	-
Iodine monochloride 7790-99-0 ( 1.5 )	-	Applicable	-

## Section 16: OTHER INFORMATION

**Key literature references and sources for data etc.**

NITE: National Institute of Technology and Evaluation (JAPAN)  
[https://www.chem-info.nite.go.jp/en/chem/chrip/chrip\\_search/srhInput](https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhInput)  
 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**

The following contents were revised. Composition/information on ingredients. Fire fighting measures. Exposure controls/personal protection. Physical and chemical properties. 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**