

## SAFETY DATA SHEET

Issue Date 26-Nov-2025  
Revision Number 3.08

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier****Product Name** OPA Reagent Set**Other means of identification****Product Code(s)** 153-01361**Recommended use of the chemical and restrictions on use****Recommended Use** For research use only.**Uses advised against** Seek expert judgment when using for purposes other than those recommended.**Details of the supplier of the safety data sheet****Manufacturer Address**

FUJIFILM Wako Pure Chemical Corporation

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**Distributor**

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## 2. HAZARDS IDENTIFICATION

**GHS classification****Classification of the substance or mixture**

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

**Pictograms****Signal word** None**Hazard statements**

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

**Precautionary statements-(Prevention)**

Not applicable

**Precautionary statements-(Response)**

Not applicable

**Precautionary statements-(Storage)**

Not applicable

**Precautionary statements-(Disposal)**

Not applicable

**Others****Other hazards** Not available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Single Substance or Mixture** Set

Chemical Name	Molecular weight	CAS RN	Weight-%
OPA Solution	N/A	N/A-15-0136-1	-
2-ME Solution	N/A	N/A-15-0136-2	-

**Impurities and/or Additives:** Not applicable

**Hazardous Component**  
**Substances Remarks:**

2-Mercaptoethanol 0.4%, o-Phthalaldehyde 0.145%  
The composition considered to be hazardous are listed in the above. The remaining ingredients are not hazardous substances, or exist at below reportable level.

**4. FIRST AID MEASURES****First aid measures**

<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Inhalation</b>	Remove to fresh air.
<b>Ingestion</b>	Rinse mouth.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Explosion data**

**Sensitivity to Mechanical** none.

**Impact**

**Sensitivity to Static Discharge** none.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation, especially in confined areas.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods and material for containment and cleaning up** Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

Technical measures Avoid contact with strong oxidizing agents.  
 Protective measures Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

Storage conditions Store away from sunlight in a cool (2-10 °C) well-ventilated dry place. Store locked up.  
 Packaging materials Glass.  
 Incompatible materials Strong oxidizing agents.

## 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	ACGIH	OSHA PEL	NIOSH IDLH
o-Phthalaldehyde 643-79-8	SL: 0.025 mg/100 cm <sup>2</sup> Skin Ceiling: 0.1 ppb vapor fraction	N/A	N/A

### Personal protective equipment

Respiratory protection Protective mask  
 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Form

Appearance	liquid
Odor	no data available
pH	no data available
Melting point/freezing point	no data available
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 , Ethanol : miscible .
n-Octanol/water partition coefficient:(log Pow)	no data available
Auto-ignition temperature:	no data available
Decomposition temperature:	no data available
Viscosity (coefficient of viscosity)	no data available
Dynamic viscosity	no data available

## Particle characteristics

no data available

## 10. STABILITY AND REACTIVITY

## Stability

## Chemical stability

Stable under recommended storage conditions.

## Reactivity

no data available

## Hazardous reactions

None under normal processing

## Conditions to avoid

Extremes of temperature and direct sunlight

## Incompatible materials

Strong oxidizing agents

## Hazardous decomposition products

Carbon dioxide (CO<sub>2</sub>), Carbon monoxide (CO), Sulfur oxides (SO<sub>x</sub>)

## 11. TOXICOLOGICAL INFORMATION

## Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Mercaptoethanol	244 mg/kg ( Rat )	150 mg/kg ( Rabbit )	N/A
o-Phthalaldehyde	121 mg/kg(Rat)	>2000 mg/kg(Rabbi)	N/A

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
2-Mercaptoethanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
o-Phthalaldehyde	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
2-Mercaptoethanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
o-Phthalaldehyde	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
2-Mercaptoethanol	Based on the NITE GHS classification results.
o-Phthalaldehyde	Based on the NITE GHS classification results.

## Serious eye damage/ irritation

Chemical Name	Serious eye damage/irritation source information
2-Mercaptoethanol	Based on the NITE GHS classification results.
o-Phthalaldehyde	Based on the NITE GHS classification results.

## Respiratory or skin sensitization

Chemical Name	Respiratory or Skin sensitization source information
2-Mercaptoethanol	Based on the NITE GHS classification results.
o-Phthalaldehyde	Based on the NITE GHS classification results.

## Reproductive cell mutagenicity

Chemical Name	germ cell mutagenicity source information
2-Mercaptoethanol	Based on the NITE GHS classification results.
o-Phthalaldehyde	Based on the NITE GHS classification results.

## Carcinogenicity

Chemical Name	Carcinogenicity source information
2-Mercaptoethanol	Based on the NITE GHS classification results.

o-Phthalaldehyde	Based on the NITE GHS classification results.
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**Reproductive toxicity**

Chemical Name	Reproductive toxicity source information
2-Mercaptoethanol	Based on the NITE GHS classification results.
o-Phthalaldehyde	Based on the NITE GHS classification results.

**STOT-single exposure**

Chemical Name	STOT -single exposure- source information
2-Mercaptoethanol	Based on the NITE GHS classification results.
o-Phthalaldehyde	Based on the NITE GHS classification results.

**STOT-repeated exposure**

Chemical Name	STOT -repeated exposure- source information
2-Mercaptoethanol	Based on the NITE GHS classification results.
o-Phthalaldehyde	Based on the NITE GHS classification results.

**Aspiration hazard**

Chemical Name	Aspiration Hazard source information
2-Mercaptoethanol	Based on the NITE GHS classification results.
o-Phthalaldehyde	Based on the NITE GHS classification results.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
2-Mercaptoethanol 60-24-2	EC50 : Desmodesmus subspicatus 12 mg/L 72 h	LC50 : Leuciscus idus 46 - 100 mg/L 96 h	N/A	EC50 : Daphnia magna 0.4 mg/L 48 h
o-Phthalaldehyde 643-79-8	EC50 : Selenastrum capricornutum 0.184 mg/L 96 h	LC50 : 0.072mg/L 96 h	N/A	EC50 : 0.087 mg/L 48 h

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available

**Mobility**

Chemical Name	Partition coefficient
2-Mercaptoethanol 60-24-2	-0.056
o-Phthalaldehyde 643-79-8	0.99

**Mobility in soil**

No information available

**Other Data**

No information available

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods****Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Precautionary including method of disposing contaminated packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14. TRANSPORT INFORMATION

<b>DOT</b>	Not regulated
UN/ID No	Not applicable
Proper shipping name:	
UN classification	
Subsidiary hazard class	
Packing group	
Marine pollutant	Not applicable
<b>IATA</b>	Not regulated
UN/ID No	-
Proper shipping name:	
UN classification	
Subsidiary hazard class	
Packing group	
Environmentally Hazardous Substance	Not applicable
<b>IMDG</b>	Not regulated
UN/ID No	-
Proper shipping name:	
UN classification	
Subsidiary hazard class	
Packing group	
Marine pollutant (Sea)	Not applicable

## 15. REGULATORY INFORMATION

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS RN	Weight-%	SARA 313 - Threshold Values %
OPA Solution - N/A-15-0136-1	N/A-15-0136-1	-	N/A
2-ME Solution - N/A-15-0136-2	N/A-15-0136-2	-	N/A

#### **SARA 311/312 Hazard Categories**

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### US State Regulations

**California Proposition 65**

This product does not contain any chemicals regulated by Proposition 65

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated by state right-to-know regulations

**U.S. EPA Label Information**

**EPA Pesticide Registration Number**Not applicable

<b>16. OTHER INFORMATION</b>
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**Issue Date**

26-Nov-2025

**Revision Note**

No information available

**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, use, processing, storage, transportation, disposal and release 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