

## SAFETY DATA SHEET

Issue Date 20-Nov-2025  
Revision Number 1.06

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

**Product identifier**

**Product Name** 10% Formalin Neutral Buffer Solution  
**Other means of identification**  
**Product Code(s)** 066-06821

**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  
1-2, Doshomachi 3-Chome,  
Chuo-ku Osaka 540-8605, Japan  
Tel : +81-6-6203-3741  
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**Distributor**

FUJIFILM Irvine Scientific  
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## 2. HAZARDS IDENTIFICATION

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

|  |             |
|--|-------------|
| <b>Acute toxicity - Inhalation (Vapors)</b>                  | Category 4  |
| <b>Respiratory sensitization</b>                             | Category 1  |
| <b>Skin sensitization</b>                                    | Category 1  |
| <b>Germ cell mutagenicity</b>                                | Category 2  |
| <b>Carcinogenicity</b>                                       | Category 1A |
| <b>Reproductive Toxicity</b>                                 | Category 1B |
| <b>Specific target organ toxicity (single exposure)</b>      | Category 1  |
| <b>Category 1</b> nervous system, respiratory system         |             |
| <b>Specific target organ toxicity (repeated exposure)</b>    | Category 1  |
| <b>Category 1</b> central nervous system, respiratory system |             |
| <b>Acute aquatic toxicity</b>                                | Category 3  |

**Pictograms****Signal word**

Danger

**Hazard statements**

H332 - Harmful if inhaled  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H341 - Suspected of causing genetic defects  
H350 - May cause cancer  
H360 - May damage fertility or the unborn child  
H317 - May cause an allergic skin reaction  
H402 - Harmful to aquatic life  
H370 - Causes damage to the following organs: nervous system, respiratory system

H372 - Causes damage to the following organs through prolonged or repeated exposure: central nervous system, respiratory system

#### Precautionary statements-(Prevention)

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required Use only outdoors or in a well-ventilated area In case of inadequate ventilation wear respiratory protection Contaminated work clothing should not be allowed out of the workplace Wear protective gloves 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

#### Precautionary statements-(Response)

IF exposed: Call a POISON CENTER or doctor/physician  
IF ON SKIN: Wash with plenty of soap and water If skin irritation or rash occurs: Get medical advice/attention Wash contaminated clothing before reuse  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

#### Precautionary statements-(Storage)

Store locked up

#### Precautionary statements-(Disposal)

Dispose of contents/container to an approved waste disposal plant

#### Others

Other hazards Not available

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Mixture

| Chemical Name                    | Molecular weight | CAS RN    | Weight-% |
|----------------------------------|------------------|-----------|----------|
| Water                            | 18.02            | 7732-18-5 | <95      |
| Formaldehyde                     | 30.03            | 50-00-0   | 4        |
| Methanol                         | 30.03            | 67-56-1   | 0.70     |
| Disodium Hydrogen Phosphate      | 141.96           | 7558-79-4 | 0.65     |
| Sodium dihydrogen orthophosphate | 119.98           | 7558-80-7 | 0.40     |

Impurities and/or Additives: Not applicable

### 4. FIRST AID MEASURES

#### First aid measures

**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin contact** Wash skin with soap and water.

**Inhalation** Remove to fresh air.

**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.

#### 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 acidic and alkaline substances. 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** Keep container protect from light, store in well-ventilated place at room temperature (preferably cool). Keep container tightly closed. Store locked up.

**Packaging materials** Polyethylene.

**Incompatible materials** Strong oxidizing agents. Strong acids. Strong bases.

## 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** Not applicable

| Chemical Name           | ACGIH  | OSHA PEL  | NIOSH IDLH   |
|-------------------------|--|---|--|
| Formaldehyde<br>50-00-0 | STEL: 0.3 ppm<br>TWA: 0.1 ppm                    | TWA: 0.75 ppm<br>(vacated) TWA: 3 ppm<br>unless specified in 1910.1048<br>(vacated) STEL: 10 ppm 30<br>min unless specified in<br>1910.1048<br>(vacated) Ceiling: 5 ppm<br>unless specified in 1910.1048<br>STEL: 2 ppm see 29 CFR<br>1910.1048 | IDLH: 20 ppm<br>Ceiling: 0.1 ppm 15 min<br>TWA: 0.016 ppm  |
| Methanol<br>67-56-1     | TWA 200ppm(260mg/m <sup>3</sup> )<br>STEL 250ppm | TWA: 200 ppm<br>TWA: 260 mg/m <sup>3</sup><br>(vacated) TWA: 200 ppm<br>(vacated) TWA: 260 mg/m <sup>3</sup><br>(vacated) STEL: 250 ppm<br>(vacated) STEL: 325 mg/m <sup>3</sup><br>(vacated) S*  | IDLH: 6000 ppm<br>TWA: 200 ppm<br>TWA: 260 mg/m <sup>3</sup><br>STEL: 250 ppm<br>STEL: 325 mg/m <sup>3</sup> |

**Personal protective equipment****Respiratory protection**

gas mask for organic gas ( JIS T 8152 )

**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****Color**

colorless

**Turbidity**

clear

**Appearance**

liquid

**Odor**

no data available

**pH**

6.8 - 7.5 (25°C)

**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 : Very soluble.

**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**

|   |                          |
|---|--------------------------|
| <b>Chemical stability</b>   | May be altered by light. |
| <b>Reactivity</b>   | no data available        |
| <b>Hazardous reactions</b>  |                          |
| None under normal processing  |                          |
| <b>Conditions to avoid</b>  |                          |
| Extremes of temperature and direct sunlight                               |                          |
| <b>Incompatible materials</b>   |                          |
| Strong oxidizing agents, Strong acids, Strong bases                       |                          |
| <b>Hazardous decomposition products</b>                                   |                          |
| Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Phosphorus oxide |                          |

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

| Chemical Name | Oral LD50               | Dermal LD50            | Inhalation LC50                     |
|---------------|-------------------------|------------------------|-------------------------------------|
| Formaldehyde  | 600 - 800 mg/kg ( Rat ) | 270 mg/kg ( Rabbit )   | < 463 ppm ( Rat ) 4 h               |
| Methanol      | 1400 mg/kg ( Human )    | 15800 mg/kg ( Rabbit ) | >31500 ppm ( Rat ) 4 h<br>( vapor ) |

| Chemical Name | Acute toxicity -oral- source information      | Acute toxicity -dermal- source information    | Acute toxicity -inhalation gas- source information |
|---------------|---|---|--|
| Formaldehyde  | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. | Based on the NITE GHS classification results.      |
| Methanol      | 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 |
|---------------|--|---|---|
| Formaldehyde  | Based on the NITE GHS classification results.        | Based on the NITE GHS classification results.       | Based on the NITE GHS classification results.       |
| Methanol      | 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  |
|---------------|---|
| Formaldehyde  | Based on the NITE GHS classification results. |
| Methanol      | Based on the NITE GHS classification results. |

### Serious eye damage/ irritation

| Chemical Name | Serious eye damage/irritation source information |
|---------------|--|
| Formaldehyde  | Based on the NITE GHS classification results.    |
| Methanol      | Based on the NITE GHS classification results.    |

### Respiratory or skin sensitization

| Chemical Name | Respiratory or Skin sensitization source information |
|---------------|--|
| Formaldehyde  | Based on the NITE GHS classification results.        |
| Methanol      | Based on the NITE GHS classification results.        |

### Reproductive cell mutagenicity

| Chemical Name | germ cell mutagenicity source information     |
|---------------|---|
| Formaldehyde  | Based on the NITE GHS classification results. |
| Methanol      | Based on the NITE GHS classification results. |

### Carcinogenicity

| Chemical Name | Carcinogenicity source information            |
|---------------|---|
| Formaldehyde  | Based on the NITE GHS classification results. |
| Methanol      | Based on the NITE GHS classification results. |

| Chemical Name           | NTP   | IARC    | ACGIH | JSOH     |
|-------------------------|-------|---------|-------|----------|
| Formaldehyde<br>50-00-0 | Known | Group 1 | A1    | Group 2A |

### Reproductive toxicity

| Chemical Name | Reproductive toxicity source information      |
|---------------|---|
| Formaldehyde  | Based on the NITE GHS classification results. |
| Methanol      | Based on the NITE GHS classification results. |

**STOT-single exposure**

| Chemical Name | STOT -single exposure- source information     |
|---------------|---|
| Formaldehyde  | Based on the NITE GHS classification results. |
| Methanol      | Based on the NITE GHS classification results. |

**STOT-repeated exposure**

| Chemical Name | STOT -repeated exposure- source information   |
|---------------|---|
| Formaldehyde  | Based on the NITE GHS classification results. |
| Methanol      | Based on the NITE GHS classification results. |

**Aspiration hazard**

| Chemical Name | Aspiration Hazard source information          |
|---------------|---|
| Formaldehyde  | Based on the NITE GHS classification results. |
| Methanol      | Based on the NITE GHS classification results. |

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

| Chemical Name           | Algae/aquatic plants | Fish  | Toxicity to microorganisms | Crustacea                                   |
|-------------------------|----------------------|---|----------------------------|---|
| Formaldehyde<br>50-00-0 | N/A                  | LC50:Pimephales promelas<br>22.6 - 25.7 mg/L 96 h | N/A                        | LC50 : Cypridopsis sp.<br>0.00094 mg/L 24 h |
| Methanol<br>67-56-1     | N/A                  | LC50 : Lepomis<br>macrochirus<br>15400 mg/L 96 h  | N/A                        | LC50 : Artemia<br>1340 mg/L 96 h            |

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available

**Mobility**

no data available

| Chemical Name           | Partition coefficient |
|-------------------------|-----------------------|
| Formaldehyde<br>50-00-0 | 0.35                  |
| Methanol<br>67-56-1     | -0.77                 |

**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

**DOT** Not regulated  
**UN/ID No** Not applicable  
**Proper shipping name:**  
**UN classification**  
**Subsidiary hazard class**  
**Packing group**  
**Marine pollutant** Not applicable

**IATA** Not regulated  
**UN/ID No** -  
**Proper shipping name:**  
**UN classification**  
**Subsidiary hazard class**  
**Packing group**  
**Environmentally Hazardous Substance** Not applicable

**IMDG** 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 contains a chemical or 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 % |
|--|-----------|----------|-------------------------------|
| Water - 7732-18-5                            | 7732-18-5 | <95      | N/A                           |
| Formaldehyde - 50-00-0                       | 50-00-0   | 4        | 0.1                           |
| Methanol - 67-56-1                           | 67-56-1   | 0.70     | 1.0                           |
| Disodium Hydrogen Phosphate - 7558-79-4      | 7558-79-4 | 0.65     | N/A                           |
| Sodium dihydrogen orthophosphate - 7558-80-7 | 7558-80-7 | 0.40     | 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 contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name                               | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|-----------------------------|------------------------|---------------------------|----------------------------|
| Formaldehyde<br>50-00-0                     | 100 lb                      | N/A                    | N/A                       | X                          |
| Disodium Hydrogen<br>Phosphate<br>7558-79-4 | 5000 lb                     | N/A                    | N/A                       | X                          |

#### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive

Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical Name                            | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ)                   |
|--|--------------------------|----------------|--|
| Formaldehyde<br>50-00-0                  | 100 lb                   | 100 lb         | RQ 100 lb final RQ<br>RQ 45.4 kg final RQ  |
| Methanol<br>67-56-1                      | 5000 lb                  | N/A            | RQ 5000 lb final RQ<br>RQ 2270 kg final RQ |
| Disodium Hydrogen Phosphate<br>7558-79-4 | 5000 lb                  | N/A            | RQ 5000 lb final RQ<br>RQ 2270 kg final RQ |

US State Regulations

California Proposition 65

This product does not contain any chemicals regulated by Proposition 65

| Chemical Name          | California Proposition 65 |
|------------------------|---------------------------|
| Formaldehyde - 50-00-0 | Carcinogen                |
| Methanol - 67-56-1     | Developmental             |

U.S. State Right-to-Know Regulations

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

| Chemical Name                            | New Jersey | Massachusetts | Pennsylvania |
|--|------------|---------------|--------------|
| Water<br>7732-18-5                       | N/A        | N/A           | X            |
| Formaldehyde<br>50-00-0                  | X          | X             | X            |
| Methanol<br>67-56-1                      | X          | X             | X            |
| Disodium Hydrogen Phosphate<br>7558-79-4 | X          | X             | X            |

U.S. EPA Label Information

EPA Pesticide Registration NumberNot applicable

16. OTHER INFORMATION

Issue Date 20-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