

## SAFETY DATA SHEET

Issue Date 22-Jul-2025  
Revision Number 2.06

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

**Product identifier**

**Product Name** Zinc Phosphate Tetrahydrate  
**Other means of identification**  
**Product Code(s)** 266-00705,262-00702

**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**

<b>Manufacturer Address</b> FUJIFILM Wako Pure Chemical Corporation 1-2, Doshomachi 3-Chome, Chuo-ku Osaka 540-8605, Japan Tel : +81-6-6203-3741 Fax: +81-6-6201-5964	<b>Distributor</b> FUJIFILM Irvine Scientific E. Warner Avenue, Santa Ana, CA 92705-5505, U.S.A.: +1 949 261 7800 Fax: +1 949 261 6522
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## 2. HAZARDS IDENTIFICATION

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

<b>Reproductive Toxicity</b>	Category 2
<b>Specific target organ toxicity (repeated exposure)</b>	Category 1
<b>Category 1</b> blood system	
<b>Acute aquatic toxicity</b>	Category 1
<b>Chronic aquatic toxicity</b>	Category 1

**Pictograms****Signal word**

Danger

**Hazard statements**

H361 - Suspected of damaging fertility or the unborn child  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects  
H372 - Causes damage to the following organs through prolonged or repeated exposure: blood 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 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 or concerned: Get medical advice/attention  
Collect spillage

**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** Substance

**Formula**  $\text{Zn}_3(\text{PO}_4)_2 \cdot 4\text{H}_2\text{O}$

Chemical Name	Molecular weight	CAS RN	Weight-%
Zinc phosphate hydrate	458.14	7543-51-3	95.0 - 105.0

**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** Prevent further leakage or spillage if safe to do so.

**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 substances  
**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 well-ventilated place at room temperature (preferably cool).  
 Keep container tightly closed. Store locked up.

**Packaging materials** Polyethylene. Polypropylene.

**Incompatible materials** Acidic substances.

## 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

#### **Personal protective equipment**

**Respiratory protection** Dust mask ( JIS T 8151 )  
**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**

white

**Appearance**

crystalline powder - powder

**Odor**

no data available

**pH**

no data available

**Melting point/freezing point**

no data available

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

1075 °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**

no data available

**Solubilities**

pale hydrochloric acid : 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****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**

Acidic substances

**Hazardous decomposition products**

Phosphorus oxide, Metal oxides

**11. TOXICOLOGICAL INFORMATION**

Data as hydrated compound has not been obtained. The data as anhydrous compound (CAS No.7779-90-0) is described.

**Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Zinc phosphate hydrate	>5000 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
Zinc phosphate hydrate	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
Zinc phosphate hydrate	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
Zinc phosphate hydrate	Based on the NITE GHS classification results.

**Serious eye damage/ irritation**

Chemical Name	Serious eye damage/irritation source information
Zinc phosphate hydrate	Based on the NITE GHS classification results.

**Respiratory or skin sensitization**

Chemical Name	Respiratory or Skin sensitization source information
Zinc phosphate hydrate	Based on the NITE GHS classification results.

**Reproductive cell mutagenicity**

Chemical Name	germ cell mutagenicity source information
Zinc phosphate hydrate	Based on the NITE GHS classification results.

**Carcinogenicity**

Chemical Name	Carcinogenicity source information
Zinc phosphate hydrate	Based on the NITE GHS classification results.

**Reproductive toxicity**

Chemical Name	Reproductive toxicity source information
Zinc phosphate hydrate	Based on the NITE GHS classification results.

**STOT-single exposure**

Chemical Name	STOT -single exposure- source information
Zinc phosphate hydrate	Based on the NITE GHS classification results.

**STOT-repeated exposure**

Chemical Name	STOT -repeated exposure- source information
Zinc phosphate hydrate	Based on the NITE GHS classification results.

**Aspiration hazard**

Chemical Name	Aspiration Hazard source information
Zinc phosphate hydrate	Based on the NITE GHS classification results.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Zinc phosphate hydrate 7543-51-3	N/A	LC50 : Oncorhynchus clarkii 0.120 mg/L 96 h [converted value 0.061 mgZn/L]	N/A	LC50 : Daphnia pulex 0.08 mg/L 48 h [converted value 0.04 mgZn/L]

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available

**Mobility**

no data available

**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**

UN/ID No

UN3077

**Proper shipping name:** Environmentally hazardous substance, solid, n.o.s. (Zinc phosphate hydrate)  
**UN classification** 9  
**Subsidiary hazard class**  
**Packing group** III  
**Marine pollutant** Yes

**IATA**

**UN/ID No** UN3077  
**Proper shipping name:** Environmentally hazardous substance, solid, n.o.s. (Zinc phosphate hydrate)  
**UN classification** 9  
**Subsidiary hazard class**  
**Packing group** III  
**Environmentally Hazardous Substance** Yes

**IMDG**

**UN/ID No** UN3077  
**Proper shipping name:** Environmentally hazardous substance, solid, n.o.s. (Zinc phosphate hydrate)  
**UN classification** 9  
**Subsidiary hazard class**  
**Packing group** III  
**Marine pollutant (Sea)** Yes

## 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 %
Zinc phosphate hydrate - 7543-51-3	7543-51-3	95.0 - 105.0	N/A

**SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	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

## 16. OTHER INFORMATION

Issue Date 22-Jul-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