



Safety Data Sheet

Section 1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Product name: Orthoperiodic acid

SDS No. : 6021E-3

Relevant identified uses of the substance or mixture and uses advised against

Research and Development

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3-1, Honmachibashi, Chuo-ku, Osaka, JAPAN

Division: Chemical Safety Management Department

Telephone number: +81-6-6946-8061

FAX: +81-6-6946-1607

Section 2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

PHYSICAL AND CHEMICAL HAZARDS

Oxidizing solids: Category 1

HEALTH HAZARDS

Skin corrosion/irritation: Category 1A

Serious eye damage/eye irritation: Category 1

(Note) GHS classification without description: Not classified/Classification not possible

Label elements



Signal word: Danger

HAZARD STATEMENT

H271 May cause fire or explosion; strong oxidizer

H314 Causes severe skin burns and eye damage

PRECAUTIONARY STATEMENT

Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P220 Keep away from clothing and other combustible materials.

P283 Wear fire resistant or flame retardant clothing.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash contaminated parts thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P370 + P378 In case of fire: Use appropriate media to extinguish.

P371 + P380 + P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

P310 Immediately call a POISON CENTER/doctor/physician.



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P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water or shower.

P363 Wash contaminated clothing before reuse.

P306 + P360 IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage

P405 Store locked up.

P420 Store separately.

Disposal

P501 Dispose of contents/container in accordance with local/national regulation.

Specific adverse human health effects

See "11. Toxicological Information".

Section 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name	Content (%)	CAS No.	Chemicals No, Japan	Chemical formula
Orthoperiodic acid	98(min)	10450-60-9	1-368	H5IO6

Note : The figures shown above are not the specifications of the product.

Section 4. First-aid measures

Descriptions of first-aid measures

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor/physician if you feel unwell.

IF ON SKIN

Take off immediately all contaminated clothing. Rinse skin with water or shower.

IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth.

Do NOT induce vomiting.

Call a POISON CENTER/doctor/physician if you feel unwell.



Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

In case of fire, use water mist or loaded liquid, foam, dry sand to extinguish.

*Fire Service Act Group 1 Hazardous Materials

Unsuitable extinguishing media

Carbon Dioxide/ Halon Extinguishing System

Dry Chemical Extinguishing System- Using Hydrogen Carbonates , etc./Others (except for phosphates etc., Hydrogen Carbonates etc.)

Fire Extinguisher Discharging Carbon Dioxide/Halogenide

Fire Extinguisher Discharging Dry Extinguishing agents-Using Hydrogen Carbonates, etc./Others (except for phosphates etc., Carbonates etc.)

*Cabinet Order Concerning the Control of Hazardous Materials (Attached Table 5) Other Group 1 Hazardous Materials

Specific hazards arising from the substance or mixture

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

See "10.Stability and Reactivity".

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Special protective equipment and precautions for fire-fighters

Wear fire resistant or flame retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with a full facepiece operated in the positive pressure mode.

Section 6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.

Ventilate area until material pick up is complete.

Wear proper protective equipment.

Environmental precautions

Prevent spills from entering sewers, watercourses, low areas or rivers. To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for containment and cleaning up

Sweep up, place in a bag and hold for waste disposal.

Preventive measures for secondary accident

Collect spillage.

Section 7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)



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Do not breathe dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep away from clothing and other combustible materials.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety Measures

Wear protective gloves/protective clothing/eye protection/face protection.

Wash hands et al thoroughly after handling.

When using do not eat, drink or smoke.

Any incompatibilities

See "10.Stability and Reactivity".

Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.

Wash contaminated clothing before reuse.

Storage

Conditions for safe storage

Keep container tightly closed.

Store locked up. (P405)

Store in a cool, dry place. Do not store in direct sunlight.

Storage in accordance with local/national regulation.

(Incompatible storage condition)

Store separately.

Container and packaging materials for safe handling

Glass

Polyethylene

etc.

Section 8. Exposure controls/personal protection

Control parameters

Adopted value

Adopted value in ACGIH is not available.

Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

Individual protection measures

Recommend to use protective equipment in conformity with the standards.

Respiratory protection

Wear respiratory protection (dust-proof mask/gas mask). Select chemical cartridge corresponding to type of gases when using a gas mask.

Hand protection

Wear impervious protective glove.

Eye protection



Wear eye/face protection. Wear safety goggles in cases gas is generated.

Skin and body protection

Wear protective clothing.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Crystals or crystalline powder

Color: White

Odor: Odourless

Melting point/Freezing point: about 130°C

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Flammability (gases, liquids and solids) data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

pH: 1.2 (10% solution,20°C)

Kinematic viscosity data is not available.

Solubility:

Solubility in water: Soluble

Solubility in solvent data is not available.

n-Octanol/water partition coefficient data is not available.

Vapor pressure data is not available.

Density and/or relative density data is not available.

Relative vapor density (Air=1) data is not available.

Particle characteristics data is not available.

Other information

Other information is not available.

Section 10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Deliquescent materials.

Possibility of hazardous reactions

Reacts with combustible materials. Reacts violently with reducing agent. This produces iodic acid.

Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

Incompatible materials

Reducing agents, Combustible materials

Hazardous decomposition products

Iodic acid



Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity data is not available.

Irritant properties

Skin corrosion/irritation

[Product]

Category 1A, Causes severe skin burns and eye damage

[Data for components of the product]

[Company proprietary data]

Category 1A

Serious eye damage/irritation

[Product]

Category 1, Causes serious eye damage

[Data for components of the product]

[Company proprietary data]

Category 1

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenic effects data is not available.

Reproductive toxicity data is not available.

Specific target organ toxicity (STOT)

STOT-single exposure data is not available.

STOT-repeated exposure data is not available.

Aspiration hazard data is not available.

Information on other hazards

May cause lung disorders by massive inhalation of powdered substance.

-e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

Section 12. Ecological Information

Toxicity

Toxicity data is not available.

Persistence and degradability

Persistence and degradability data is not available.

Bioaccumulative potential

Bioaccumulative potential data is not available.

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

Section 13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Waste treatment methods

Dispose of contents/container as industrial waste. Accordance with local/national regulation.



Section 14. Transport Information

UN Number or ID Number : 3085
UN Proper Shipping Name :
OXIDIZING SOLID, CORROSIVE, N.O.S.
Class or division (Transport hazard class) : 5.1
Subsidiary hazard(s) : 8
Packing group : I
ERG GUIDE No.: 140
Special provisions No.: 274

IMDG Code (International Maritime Dangerous Goods Regulations)

UN Number or ID Number : 3085
UN Proper Shipping Name :
OXIDIZING SOLID, CORROSIVE, N.O.S.
Class or division (Transport hazard class) : 5.1
Subsidiary hazard(s) : 8
Packing group : I
Special provisions No.: 274

IATA (Dangerous Goods Regulations)

UN Number or ID Number : 3085
UN Proper Shipping Name :
OXIDIZING SOLID, CORROSIVE, N.O.S.
Class or division (Transport hazard class) : 5.1
Subsidiary hazard(s) : 8
Hazard labels : Oxidizer & Corrosive
Packing group : I
Special provisions No.: A3; A803

Environmental hazards

Marine pollutants (yes/no) : no

Section 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Toxic Substances Control Act (TSCA) Inventory

Chemicals listed in TSCA Inventory

Applicable

Other regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

Section 16. Other information

References and sources for data

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 22nd edit., 2021 UN

IMDG Code, 2020 Edition (Incorporating Amendment 40-20)

IATA Dangerous Goods Regulations (64th Edition) 2023

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2023 TLVs and BEIs. (ACGIH)

Supplier's data/information

**General Disclaimer**

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2022).