

SAFETY DATA SHEET

Version: v1
Revision Date: 2023-07-15
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Periodic acid
Product Number : P104610
Brand : aladdin
CAS-No. : 10450-60-9

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

Identified uses : It is only for scientific research purposes, not for medicine, family standby medicine or other purposes.

1.3 Details of the supplier of the safety data sheet

Company : Shanghai Aladdin Biochemical Tech Co.,Ltd
Address : 36 Xinjinqiao Road, Shanghai
Telephone : 400-620-6333
Fax : no data available

1.4 Emergency telephone number

Emergency Phone : 0532-83889090

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing solids (Category 1), H271

Skin corrosion (Sub-category 1B), H314

Serious eye damage (Category 1), H318

Specific target organ toxicity - repeated exposure, Oral (Category 1), Thyroid, H372

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H272

May intensify fire; oxidizer

H314

Causes severe skin burns and eye damage

H372

Causes damage to organs through prolonged or repeated exposure

H410

Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P210

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

P220

Keep away from clothing and other combustible materials.

P221

Take any precaution to avoid mixing with combustibles/...

P260

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

P264

Wash hands [and ...] thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P273

Avoid release to the environment.

P280

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

P314

Get medical advice/attention if you feel unwell.

P363

Wash contaminated clothing before reuse.

P391

Collect spillage.

P301+P330+P331

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P370+P378	In case of fire: Use ... to extinguish.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Para-periodic acid; protoperiodic acid; periodic acid
Formula	: H5IO6
Molecular weight	: 227.94
CAS No.	: 10450-60-9
EC-NO.	: 233-937-0

Component	Classification	Concentration
Periodic acid	Ox. Sol. 1; Skin Corr. 1B; Eye Dam. 1; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H271, H314, H318, H372, H400, H410 M-Factor - Aquatic Chronic: 1	for electrophoresis, ≥99%

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

4.2 Most important symptoms and effects, both acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

no data available

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

Hydrogen iodide. Not combustible. Has a fire-promoting effect due to release of oxygen. Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions(see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep away from open flames, hot surfaces and sources of ignition.

7.2 Conditions for safe storage, including any incompatibilities

Tightly closed. Keep locked up or in an area accessible only to qualified or authorized persons. Separately or together with other oxidising substances only and away from sources of ignition and heat. Because of their oxidation potential these products can raise the burning rate of combustible substances substantially or ignite combustible substances on contact with them. Light sensitive. hygroscopic

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(EU).

Skin protection

The gloves must be checked before use. Please use the correct method to remove the gloves (do not touch the outer surface of the gloves), and avoid any skin parts contacting the product. After use, please handle contaminated gloves carefully in accordance with relevant laws and regulations and effective laboratory procedures and procedures. Please clean and dry the protective gloves selected for your hands, which must comply with the specifications given in Regulation (EU) 2016/425 and the en 374 standard derived therefrom.

Body Protection

Impermeable clothing, flame-retardant and anti-static protective clothing, and the type of protective equipment must be selected according to the concentration and content of the dangerous substance in the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	form: powder or crystals color: white or almost white
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	122 °C
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	Soluble in water and ethanol, slightly soluble in ether.
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

9.2 Other safety information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Risk of explosion with:dimethyl sulfoxide,oxidisable substances. Exothermic reaction with:phosphorus. Violent reactions possible with:organic combustible substances,nonmetals.

10.4 Conditions to avoid

hygroscopic

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Skin corrosion/irritation

Skin - Human. Result: Skin irritation - 1 h (OECD Test Guideline 431)

Serious eye damage/eye irritation

Eyes - In vitro study. Result: Eye irritation (OECD Test Guideline 437)

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

Test Type: Ames test. Test system: *S. typhimurium*. Metabolic activation: with and without metabolic activation.

Method: OECD Test Guideline 471. Result: negative. .

Carcinogenicity

no data available

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

Ingestion - Causes damage to organs through prolonged or repeated exposure. - Thyroid

Aspiration hazard

no data available

Additional Information

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish semi-static test LC50 - *Oncorhynchus mykiss* (rainbow trout) - < 0,17 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates static test EC50 - *Daphnia magna* (Water flea) - 0,18 mg/l - 48 h

(OECD Test Guideline 202)

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata - 2,5 mg/l

(OECD Test Guideline 201)

Toxicity to bacteria

Respiration inhibition EC50 - activated sludge - 220 mg/l - 3 h

(OECD Test Guideline 209)

Respiration inhibition NOEC - activated sludge - 56 mg/l - 3 h

(OECD Test Guideline 209)

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: 3085

Packing group: II

Class: 5.1 (8)

Proper shipping name: OXIDIZING

Reportable Quantity(RQ): no data

Poison Inhalation Hazard: no data

SOLID, CORROSIVE, N.O.S. (Periodic available acid)

available

Environmental Hazards: No

IMDG

UN number: 3085

Packing group: II

EMS-No: no data available

Proper shipping name: OXIDIZING SOLID, CORROSIVE, N.O.S. (Periodic acid)

IATA

UN number: 3085

Packing group: II

Class: 5.1 (8)

Proper shipping name: OXIDIZING SOLID, CORROSIVE, N.O.S. (Periodic acid)

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 16: Other information

Further information

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