

# SAFETY DATA SHEET

Version: v2  
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Sodium perborate monohydrate  
Product Number : S476615  
Brand : aladdin  
CAS-No. : 10332-33-9

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

Identified uses : Laboratory chemicals, Manufacture of substances.

### 1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION  
Address : 14078 Meridian Parkway,  
Riverside, CA. 92518  
Telephone : +1 (833) 552-7181  
Fax : no data available

### 1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300  
CHEMTREC®, Outside the USA :

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

Oxidized solid (Class 2), H272  
Acute Toxicity, Oral (Category 4), H302  
Skin corrosion/irritation (category 3), H316  
Serious eye injury/eye irritation (Category 1), H318  
Reproductive toxicity (Category 1B), H360  
Specific target organ systemic toxicity (single exposure) (Category 3), respiratory irritation, H335  
Acute (short-term) aquatic hazard (Category 2), H401

## 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

|      |                                          |
|------|------------------------------------------|
| H272 | May intensify fire; oxidizer             |
| H302 | Harmful if swallowed                     |
| H316 | Causes mild skin irritation              |
| H318 | Causes serious eye damage                |
| H335 | May cause respiratory irritation         |
| H360 | May damage fertility or the unborn child |
| H401 | Toxic to aquatic life                    |

Precautionary statement(s)

|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P201           | Obtain special instructions before use.                                                                                          |
| P210           | Keep away from heat, hot surface, sparks, open flames and other ignition sources.<br>- No smoking.                               |
| P202           | Do not handle until all safety precautions have been read and understood.                                                        |
| P220           | Keep away from clothing and other combustible materials.                                                                         |
| P221           | Take any precaution to avoid mixing with combustibles/...                                                                        |
| P261           | Avoid breathing dust/fume/gas/mist/vapors/spray.                                                                                 |
| P264           | Wash hands [and ...] thoroughly after handling.                                                                                  |
| P270           | Do not eat, drink or smoke when using this product.                                                                              |
| P271           | Use only outdoors or in a well-ventilated area.                                                                                  |
| P273           | Avoid release to the environment.                                                                                                |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.                                                       |
| P301+P312      | IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell.                                                                |
| 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. |
| P308+P313      | IF exposed or concerned: Get medical advice/attention.                                                                           |
| P332+P313      | IF SKIN irritation occurs: Get medical advice/attention.                                                                         |
| P370+P378      | In case of fire: Use ... to extinguish.                                                                                          |
| P405           | Store locked up.                                                                                                                 |
| P403+P233      | Store in a well-ventilated place. Keep container tightly closed.                                                                 |
| 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         | : no data available  |
| Formula          | : 3·H <sub>2</sub> O |
| Molecular weight | : 99.81              |
| CAS No.          | : 10332-33-9         |
| EC-NO.           | : 600-419-4          |

| Component                           | Classification    | Concentration     |
|-------------------------------------|-------------------|-------------------|
| <b>Sodium perborate monohydrate</b> |                   |                   |
|                                     | no data available | powder,20-100mesh |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 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**

Dry powder Dry sand

**Unsuitable extinguishing media**

no data available

## 5.2 Special hazards arising from the substance or mixture

Borane/boron oxides, Sodium oxides

## 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

## 5.4 Further information

Use water spray to cool unopened containers.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### 6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of

ignition - No smoking. Keep away from heat and sources of ignition. For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Store at room temperature.

## 7.3 Specific end use(s)

no data available

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# 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

Gloves must be checked before use. Please use proper methods 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 the contaminated gloves carefully according to relevant laws and regulations and effective laboratory rules and procedures. Please clean and blow dry the protective gloves selected for your hands must meet the specifications given in regulation (EU) 2016 / 425 and the en 374 standard derived from it.

#### Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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.

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# SECTION 9: Physical and chemical properties

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## 9.1 Information on basic physical and chemical properties

|                                                 |                           |
|-------------------------------------------------|---------------------------|
| a) Appearance                                   | form: powder color: White |
| b) Odour                                        | odorless                  |
| c) Odour Threshold                              | no data available         |
| d) pH                                           | no data available         |
| e) Melting point/freezing point                 | 150 °C at 1.013 hPa       |
| 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                             | no data available         |
| 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

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## 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

no data available

### 10.4 Conditions to avoid

no data available

## 10.5 Incompatible materials

Strong reducing agents, Heavy metal salts

## 10.6 Hazardous decomposition products

Borane/boron oxides, Sodium oxides

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# SECTION 11: Toxicological information

## 11.1 Information on toxicological effects

### Acute toxicity

LD50 Oral - Rat - Male and Female -1120 mg/kg

(EPA Pesticide Program Office Test Guide 81-1)

Note: Classified according to Annex 6 (Tables 3.1/3.2) of EU CLP Regulation 1272/2008

Inhalation: No data available

LD50 transdermal rabbit male and female ->2000 mg/kg

(OECD Testing Guideline 402)

### Skin corrosion/irritation

Skin - Rabbit Result: Mild skin irritation -4 hours (OECD Testing Guideline 404)

### Serious eye damage/eye irritation

Eyes - Rabbit Result: Eye irritation (OECD Testing Guideline 405) Note: Classified according to Annex 6 (Tables 3.1/3.2) of EU CLP Regulation 1272/2008

### Respiratory or skin sensitisation

Buehler Guinea Pig Test - Guinea Pig Result: Negative (OECD Testing Guideline 406)

### Germ cell mutagenicity

Test type: Ames test Testing system: Escherichia coli/Salmonella typhimurium Metabolic activation: No metabolic activation Method: OECD Testing Guideline 471 Result: Positive Remarks: (Compared with similar products)

Corresponding values have been specified for the following substances: sodium perborate tetrahydrate Test type:

Ames test Testing System: Salmonella Typhimurium Metabolic activation: with or without metabolic activation

effect Method: OECD Testing Guideline 471 Result: Positive Test type: In vitro chromosomal aberration test

Testing system: Chinese hamster ovary cells Metabolic activation: with or without metabolic activation effect

Method: OECD Testing Guideline 473 Result: Positive

### Carcinogenicity

no data available

### Reproductive toxicity

May cause harm to the fetus. May cause harm to fertility.

### Specific target organ toxicity - single exposure

Inhalation - may cause respiratory irritation. Note: Classified according to Annex 6 (Tables 3.1/3.2) of EU CLP Regulation 1272/2008

**Specific target organ toxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**Additional Information**

Repeated toxicity - rats - male and female - oral -28 days - level of no observed harmful effects -<1000 mg/kg

Note: Subacute toxicity

Corresponding values have been specified for the following substance: sodium perborate tetrahydrate

Repeated toxicity - rat - male and female - transdermal -20 days - level at which no harmful effects were observed -200 mg/kg

Remarks: (ECHA)

Corresponding values have been specified for the following substance: sodium perborate tetrahydrate

To our knowledge, the chemical, physical, and toxic properties of this substance have not been fully studied.

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## SECTION 12: Ecological information

### 12.1 Toxicity

Semi static toxicity test on fish LC50- Danio rerio (zebrafish) -51 mg/l -96 h

(OECD Testing Guidelines 203)

Semi static test NOEC - Danio rerio (zebrafish) -25 mg/l -96 h

(OECD Testing Guidelines 203)

For water fleas and other aquatic species without ridges

Toxicity of Vertebrate Animals

Semi static test EC50- Daphnia magna -11 mg/l -48 h

(OECD Testing Guidelines 202)

Semi static test NOEC - Daphnia magna -8 mg/l -48 h

(OECD Testing Guidelines 202)

Static toxicity test on algae ErC50- Pseudokirchneriella subcapita (green algae) -6.3 mg/l -72 h

(OECD Testing Guidelines 201)

### 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

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. Observe all federal, state and local regulations when disposing of the substance.

#### Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

#### DOT (US)

|                                                    |                                           |                                            |
|----------------------------------------------------|-------------------------------------------|--------------------------------------------|
| UN number: 3377                                    | Packing group: III                        | Class: 5.1                                 |
| Proper shipping name: SODIUM PERBORATE MONOHYDRATE | Reportable Quantity(RQ):no data available | Poison Inhalation Hazard:no data available |
| Environmental Hazards: no                          |                                           |                                            |

#### IMDG

|                                                    |                    |                          |
|----------------------------------------------------|--------------------|--------------------------|
| UN number: 3377                                    | Packing group: III | EMS-No:no data available |
| Proper shipping name: SODIUM PERBORATE MONOHYDRATE |                    |                          |

#### IATA

|                                                    |                    |            |
|----------------------------------------------------|--------------------|------------|
| UN number: 3377                                    | Packing group: III | Class: 5.1 |
| Proper shipping name: SODIUM PERBORATE MONOHYDRATE |                    |            |

## SECTION 15: Regulatory information

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

## SECTION 16: Other information



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