## SAFETY DATA SHEET

Version: v1 Revision Date: 2024-01-19 Print Date: 2024-01-19

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

## 1.1 Product identifiers

Product name	: Boric acid
Product Number	: B431189
Brand	: aladdin
CAS-No.	: 10043-35-3

## 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) Reproductive toxicity (Category 1B), H360FD

### 2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal word	Danger
Hazard statement(s)	
H303	May be harmful if swallowed
H360	May damage fertility or the unborn child
Precautionary statement(s)	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.



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P280	Wear protective gloves/protective clothing/eye protection/face protection.
P312	Call a POISON CENTER or doctor/ if you feel unwell.
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	: Orthoboric acid, Trihydroxidoboron
Formula	: H3BO3
Molecular weight	: 61.84
CAS No.	: 10043-35-3
EC-NO.	: 233-139-2

Component	Classification	Concentration
Boric acid		
	Repr. 1B; H360FD Concentration limits: >= 5,5 %: Repr. 1B, H360FD;	99.9999%
		SuperPure grade

### **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

General advice

Consult a physician. Show this 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

Flush eyes with water as a precaution.

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

no data available

# 4.3 Indication of any immediate medical attention and special treatment needed

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#### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Unsuitable extinguishing media no data available

## 5.2 Special hazards arising from the substance or mixture

Borane/boron oxides Not combustible. Ambient fire may liberate hazardous vapours.

#### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary

#### 5.4 Further information

no data available

#### SECTION 6: Accidental release measures

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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

#### 6.2 Environmental precautions

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

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

Pick up and arrange disposal without creating dust.Sweep up and shovel.Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For disposal see section 13.

#### **SECTION 7: Handling and storage**

#### 7.1 Precautions for safe handling

Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed.

#### 7.2 Conditions for safe storage, including any incompatibilities

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Moisture sensitive.Dry storage.

#### 7.3 Specific end use(s)

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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

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves.Gloves must be inspected prior to use.Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product.Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.Wash and dry hands.The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body Protection** 

Impervious 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 (EN 143) respirator cartridges as a backup to engineering controls. If th 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 no data available

### **SECTION 9: Physical and chemical properties**

## 9.1 Information on basic physical and chemical properties

a) Appearance	form: crysyal orpowder color: Colorless or white
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	169°C
f) Initial boiling point and boiling range	300°C
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available

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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	r 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

Stable under recommended storage conditions.

### 10.2 Chemical stability

no data available

#### 10.3 Possibility of hazardous reactions

The product is chemically stable under standard ambient conditions (room temperature)

#### 10.4 Conditions to avoid

Exposure to moisture.

#### 10.5 Incompatible materials

no data available

## 10.6 Hazardous decomposition products

no data available

## SECTION 11: Toxicological information

## 11.1 Information on toxicological effects

Acute toxicity LD50 Oral - Rat - male and female - 3.450 mg/kg

Remarks: (ECHA)

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> LC50 Inhalation - Rat - male and female - 4 h - > 2,12 mg/l (OECD Test Guideline 403) LD50 Dermal - Rabbit - male and female - > 2.000 mg/kg Remarks: (ECHA) Skin corrosion/irritation Skin - Rabbit Result: No skin irritation - 24 h Remarks: (ECHA) Serious eye damage/eye irritation Eyes - Rabbit Result: No eye irritation - 24 h (OECD Test Guideline 405) Respiratory or skin sensitisation Buehler Test - Guinea pig Result: negative (OECD Test Guideline 406) Germ cell mutagenicity sister chromatid exchange assay Chinese hamster ovary cells Result: negative Remarks: (ECHA) Ames test S. typhimurium Result: negative In vitro mammalian cell gene mutation test mouse lymphoma cells Result: negative OECD Test Guideline 474 Mouse - male and female Result: negative Carcinogenicity no data available Reproductive toxicity May damage fertility. May damage the unborn child. Specific target organ toxicity - single exposure no data available Specific target organ toxicity - repeated exposure no data available Aspiration hazard no data available Additional Information Repeated dose toxicity - Rat - male and female - Oral - 2 yr - NOAEL (No observed adverse effect level) - 17,5 mg/kg -LOAEL (Lowest observed adverse effect level) - 58,5 mg/kg

RTECS: ED4550000

Toxicity reported for borates in humans: ingestion or absorption may cause nausea, vomiting, diarrhea, abdominal cramps, anderythematous lesions on the skin and mucous membranes. Other symptoms include: circulatory collapse, tachycardia, cyanosis, delirium, convulsions, and coma. Death has been reported to occur in infants from less than 5 grams and in adults from 5 to 20 grams.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Liver - Irregularities - Based on Human Evidence

## SECTION 12: Ecological information

### 12.1 Toxicity

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Toxicity to fish LC50 - Ptychocheilus lucius - 279 mg/l - 96 h Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 133 mg/l - 48 h

### 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

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### 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: no data available	Packing group: no data available	Class: 9
Proper shipping name: Other miscellaneous dangerous goods	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: no data available
Environmental Hazards: no		
IMDG		
UN number: no data available	Packing group: no data available	EMS-No: no data available
Proper shipping name: Other miscella	neous dangerous goods	
ΙΑΤΑ		
UN number: no data available	Packing group: no data available	Class: 9
Proper shipping name: Other miscella	neous dangerous goods	

### **SECTION 15: Regulatory information**

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

## **SECTION 16: Other information**

Regulatory Affairs ALADDIN SCIENTIFIC CORPORATION Email: QualityAssurance@aladdinsci.com
19-Jan-2024
19-Jan-2024
19-Jan-2024
SDS sections updated v1

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