

# SAFETY DATA SHEET

Version: v1

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

### 1.1 Product identifiers

Product name : 9-Borabicyclo[3.3.1]nonane  
Product Number : B130058  
Brand : aladdin  
CAS-No. : 280-64-8(THF)

### 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)

Flammable liquid (Class 2), H225

Substances and mixtures that emit flammable gases when exposed to water (Class 1), H260

Acute toxicity, oral (Class 4), H302

Severe eye injury/eye irritation (Category 2A), H319

Carcinogenicity (Category 2), H351

Specific target organ systemic toxicity (single exposure) (Category 3), respiratory irritation, anesthetic effects, H335, H336

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

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## Hazard statement(s)

|      |   |
|------|---|
| H225 | Highly Flammable liquid and vapor   |
| H260 | In contact with water releases flammable gases which may ignite spontaneously |
| H302 | Harmful if swallowed  |
| H319 | Causes serious eye irritation   |
| H335 | May cause respiratory irritation  |
| H336 | May cause drowsiness or dizziness   |
| H351 | Suspected of causing cancer   |

## Precautionary statement(s)

|                |  |
|----------------|--|
| P201           | Obtain special instructions before use.  |
| P210           | Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.                                  |
| P202           | Do not handle until all safety precautions have been read and understood.  |
| P223           | Do not allow contact with water.   |
| P240           | Ground/bond container and receiving equipment.   |
| P241           | Use explosion-proof [electrical/ventilating/lighting/.../] equipment.  |
| P242           | Use only non-sparking tools.   |
| P243           | Take precautionary measures against static discharge.  |
| 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.  |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.   |
| P303+P361+P353 | IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].                         |
| 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.   |
| P335+P334      | Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.   |
| P337+P313      | IF eye irritation persists: Get medical advice/attention.  |
| P370+P378      | In case of fire: Use ... to extinguish.  |
| P405           | Store locked up.   |
| P402+P404      | Store in a dry place. Store in a closed container.   |
| P403+P233      | Store in a well-ventilated place. Keep container tightly closed.   |
| P403+P235      | Store in a well-ventilated place. Keep cool.   |
| P501           | Dispose of contents/container to an approved waste disposal plant.   |
| P301+P312+P330 | IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.  |
| P304+P340+P312 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor. if you feel unwell.   |

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

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |   |
|------------------|---|
| Synonyms         | : 9-BBN ; 9-Borabicyclo[3.3.1]nonane solution |
| Formula          | : C <sub>8</sub> H <sub>15</sub> B            |
| Molecular weight | : 122.02                                      |
| CAS No.          | : 280-64-8(THF)                               |
| EC-NO.           | : no data available                           |

| Component                  | Classification    | Concentration |
|----------------------------|-------------------|---------------|
| 9-Borabicyclo[3.3.1]nonane | no data available | 0.5 M in THF  |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice

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

If inhaled

If inhaled, please move the patient to fresh air. If breathing stops, give artificial respiration.

In case of skin contact

Rinse with soap and plenty of water. Consult a doctor.

In case of eye contact

Thoroughly rinse with plenty of water for at least 15 minutes and consult a doctor.

If swallowed

Do not induce vomiting. Do not feed anything to unconscious individuals. Rinse your mouth with water. Consult a doctor.

### 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

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

Water,Foam,Carbon dioxide (CO<sub>2</sub>),Dry powder

Unsuitable extinguishing media

no data available

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## 5.2 Special hazards arising from the substance or mixture

Carbon oxides, Borane/Boron oxide

## 5.3 Advice for firefighters

If necessary, wear a self-contained breathing apparatus to put out the fire.

## 5.4 Further information

no data available

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## SECTION 6: Accidental release measures

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

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### 6.2 Environmental precautions

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

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

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

### 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

Operators should be specially trained and strictly abide by the operating procedures. Operation and disposal should be carried out in a place with local ventilation or general ventilation facilities. Avoid eye and skin contact and avoid breathing vapor. See Section 8 for personal protective measures. Keep away from fire and heat sources, and smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. If canning is required, the flow rate should be controlled, and there should be a grounding device to prevent the accumulation of static electricity. Avoid contact with incompatible substances such as oxidizing agents (see section 10 for incompatible substances). When handling, it should be lightly loaded and unloaded to prevent damage to packaging and containers. Empty containers may be harmful residues. Wash hands after use and prohibit eating or drinking in the workplace. Equipped with the corresponding variety and quantity of fire fighting equipment and leakage emer

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

Sensitive to air and moisture, stored with argon filling

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### 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

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's 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 Regulation (EU)2016/425 and the standard EN 374 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 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

If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |  |                               |
|--|-------------------------------|
| a) Appearance                              | form: Liquid color: Colorless |
| b) Odour                                   | no data available             |
| c) Odour Threshold                         | no data available             |
| d) pH                                      | no data available             |
| e) Melting point/freezing point            | no data available             |
| f) Initial boiling point and boiling range | no data available             |

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|   |                   |
|---|-------------------|
| 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                             | 0.884             |
| 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

Heat, flames, and sparks. Extreme temperatures and direct sunlight. Exposed to moisture.

### 10.5 Incompatible materials

Intense reactions with water, acids, alcohols, oxidizing agents

### 10.6 Hazardous decomposition products

React with water to form - hydrogen peroxide

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

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Oral: No data available

Acute toxicity estimated orally -1772 mg/kg

(Calculation method)

Symptoms: Possible symptoms: Mucosal irritation, cough, shortness of breath, possible damage: Damage to the respiratory tract

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Mixtures can cause severe eye irritation

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

The mixture can cause respiratory irritation. The mixture may cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

Long term or repeated skin contact can cause degreasing and dermatitis., Loss of consciousness, nausea, dizziness, cough, chest pain, anesthesia, headache, central nervous system suppression,

Dyspnea

Other hazards cannot be ruled out.

This substance requires special caution in handling

Operate in accordance with good industrial hygiene and safety practices.

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## SECTION 12: Ecological information

### 12.1 Toxicity

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

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## 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

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## 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.

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## SECTION 14: Transport information

DOT (US)

UN number: 3399

Packing group: I

Class: 4.3 (3)

Proper shipping name: Liquid organic metal substance that reacts with water and is flammable (9-borobicyclic [3.3.1]

Reportable Quantity(RQ): no data available

Poison Inhalation Hazard: no data available

nonane, tetrahydrofuran)

Environmental Hazards: no

IMDG

UN number: 3399

Packing group: I

EMS-No: no data available

Proper shipping name: Liquid organic metal substance that reacts with water and is flammable (9-borobicyclic [3.3.1]

nonane, tetrahydrofuran)

IATA

UN number: 3399

Packing group: I

Class: 4.3 (3)

Proper shipping name: Liquid organic metal substance that reacts with water and is flammable (9-borobicyclic [3.3.1]

nonane, tetrahydrofuran)

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## SECTION 15: Regulatory information

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

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## SECTION 16: Other information

Phone: +1 (833) 552-7181 Email: [QualityAssurance@aladdinsci.com](mailto:QualityAssurance@aladdinsci.com) Website: <https://www.aladdinsci.com/>



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|                         |   |
|-------------------------|---|
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