

## SAFETY DATA SHEET

Version: v1

Revision Date: 2024-01-22

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : 2,5-Difluorobenzylzinc bromide solution  
Product Number : D169452  
Brand : aladdin  
CAS-No. : 307496-32-8

**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)  
Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2), H225

Substances and mixtures which in contact with water emit flammable gases (Category 2), H261

Acute toxicity, Oral (Category 4), H302

Eye irritation (Category 2), H319

Carcinogenicity (Category 2), H351

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

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## 2.2 GHS Label elements, including precautionary statements

|                            |                                                                                                                                  |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Pictogram                  | no data available                                                                                                                |
| Signal word                | Danger                                                                                                                           |
| Hazard statement(s)        |                                                                                                                                  |
| H225                       | Highly Flammable liquid and vapor                                                                                                |
| H261                       | In contact with water releases flammable gas                                                                                     |
| 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.                                  |
| P231+P232                  | Handle under inert gas/... Protect from moisture.                                                                                |
| P301+P312                  | IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell.                                                                |
| 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.                                                                           |

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

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

|                  |                                                     |
|------------------|-----------------------------------------------------|
| Synonyms         | : no data available                                 |
| Formula          | : C <sub>7</sub> H <sub>5</sub> BrF <sub>2</sub> Zn |
| Molecular weight | : 272.41                                            |

| Component | Classification | Concentration |
|-----------|----------------|---------------|
|-----------|----------------|---------------|

### 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

Do NOT induce vomiting. 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

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### **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**

Carbon oxides, Hydrogen bromide gas, Hydrogen fluoride, Zinc/zinc oxides Combustible.

#### **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 breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of

#### **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**

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Do not flush with water.

## 6.4 Reference to other sections

For disposal see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. 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. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place. Never allow product to get in contact with water during storage. Recommended storage temperature 2 - 8 °C Store under inert gas. Dry residue is explosive. Test for peroxide formation periodically and before distillation. Dry residue is explosive. Store under inert gas. Test for peroxide formation periodically and before distillation.

### 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

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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                 |                   |
|-------------------------------------------------|-------------------|
| a) Appearance                                   | no data available |
| 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      | 65.0 - 67.0 °C    |
| g) Flash point                                  | -17 °C            |
| 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

## 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

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#### 10.4 Conditions to avoid

Heat, flames and sparks. Exposure to moisture.

#### 10.5 Incompatible materials

Oxidizing agents, Oxygen

#### 10.6 Hazardous decomposition products

no data available

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

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

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

no data available

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### SECTION 12: Ecological information

#### 12.1 Toxicity

no data available

#### 12.2 Persistence and degradability

no data available

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**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: 3399

Packing group: II

Class: 4.3 (3)

Proper shipping name:

Reportable Quantity(RQ): no data  
availablePoison Inhalation Hazard: no data  
availableORGANOMETALLIC SUBSTANCE,  
LIQUID, WATER-REACTIVE,  
FLAMMABLE (Tetrahydrofuran, 2,5-  
Difluorobenzylzinc bromide)

Environmental Hazards: no

IMDG

UN number: 3399

Packing group: II

EMS-No: no data available

Proper shipping name: ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE (Tetrahydrofuran,  
Difluorobenzylzinc bromide)

IATA

UN number: 3399

Packing group: II

Class: 4.3 (3)

Proper shipping name: ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE (Tetrahydrofuran,  
Difluorobenzylzinc bromide)**SECTION 15: Regulatory information**Phone: +1 (833) 552-7181 Email: [QualityAssurance@aladdinsci.com](mailto:QualityAssurance@aladdinsci.com) Website: <https://www.aladdinsci.com/>

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

## SECTION 16: Other information

**Prepared By**

Regulatory Affairs

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**Revision Summary**

SDS sections updated v1

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