

# 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 : Benzene-d6  
Product Number : B100912  
Brand : aladdin  
CAS-No. : 1076-43-3

### 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)

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids Category 2

Skin Corrosion/Irritation Category 2

Serious Eye Damage/Eye Irritation Category 2

Germ Cell Mutagenicity Category 1B

Carcinogenicity Category 1A

Specific target organ toxicity - (repeated exposure) Category 1

Target Organs - Hematopoietic System. Aspiration Toxicity Category 1

## 2.2 GHS Label elements, including precautionary statements

Pictogram



Danger

Signal word

Hazard statement(s)

H225	Highly Flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H340	May cause genetic defects
H350	May cause cancer
H373	Causes damage to organs through prolonged or repeated exposure

Precautionary statement(s)

P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P233	Keep container tightly closed.
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.
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.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P321	Specific treatment (see ... on this label).
P331	Do NOT induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water.
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.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use ... to extinguish.
P405	Store locked up.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to an approved waste disposal plant.
P203	Obtain, read and follow all safety instructions before use.
P264+P265	Wash hands [and ...] thoroughly after handling. Do not touch eyes.
P301+P316	IF SWALLOWED: Get emergency medical help immediately.
P318	if exposed or concerned, get medical advice.

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P337+P317 If eye irritation persists: Get medical help.  
P332+P317 If skin irritation occurs: Get medical help.  
P319 Get medical help if you feel unwell.

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

Cancer and Reproductive Harm

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms : Hexadeuterobenzene; Perdeuterobenzene  
Formula : C<sub>6</sub>D<sub>6</sub>  
Molecular weight : 84.15  
CAS No. : 1076-43-3  
EC-NO. : 214-061-8

Component	Classification	Concentration
Benzene-d <sub>6</sub>	no data available	≥99.5 atom% D

## 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

Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.

#### In case of skin contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.

#### In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

#### If swallowed

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur. Do NOT induce vomiting.

### 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

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

**5.1 Extinguishing media****Suitable extinguishing media**

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

**Unsuitable extinguishing media**

no data available

**5.2 Special hazards arising from the substance or mixture**

no data available

**5.3 Advice for firefighters**

wear self-contained breathing and full protective gear.

**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 as required. Ensure adequate ventilation.

**6.2 Environmental precautions**

Should not be released into the environment. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.

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

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). 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**

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

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

Sensitive to humidity; Sensitive to light, avoid light and store with argon gas

**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

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: Clear
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	6.8°C
f) Initial boiling point and boiling range	79.1°C
g) Flash point	-11°C
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	0.95
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

Exothermic reactions occur in the presence of halogenated hydrocarbons, light metal halogens, halogenated compounds, boron nitrate, ozone peroxide, perchlorate, permanganate, chlorine fluoride, strong oxidizing agents, chlorine fluoride, uranium hexafluoride, which can cause explosion hazards. Oxygen liquids may cause fire or the production of flammable gases or vapors. Chromium (VI) fluoronitrate oxides may undergo violent reactions with mineral acids Sulfur

### 10.4 Conditions to avoid

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

### 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 ->2000 mg/kg

(OECD Testing Guideline 401)

Symptom: Nausea

LC50 inhalation - rat - female -4 h -43.7 mg/l - vapor

(OECD Testing Guideline 403)

Symptoms: Possible damage: Mucosal irritation

LD50 transdermal rabbit male and female ->8260 mg/kg

(OECD Testing Guideline 402)

**Skin corrosion/irritation**

Skin - Rabbit Result: Irritation to the skin- 4 h (OECD Testing Guideline 404) Note: The drying effect that causes rough or cracked skin

**Serious eye damage/eye irritation**

Eyes - Rabbit Result: Eye irritation Remarks: (ECHA)

**Respiratory or skin sensitisation**

Maximum Response Test - Guinea Pig Result: Negative (OECD Test Guideline 406)

**Germ cell mutagenicity**

May cause genetic defects. Test type: Ames test Testing System: Salmonella Typhimurium Metabolic activation: with or without metabolic activation effect Method: OECD Testing Guideline 471 Result: Negative Test type: Mutational (mammalian cell test): Chromosomal mutation negative Testing System: Chinese Hamster Lung Cells Metabolic activation: with or without metabolic activation effect Method: US-EPA Result: Positive Test type: Mutation (mammalian cell test): Micronucleus positive Species: Mouse Cell type: Bone marrow Exposure route: Inhalation (vapor) Method: OECD Testing Guidelines 474 Result: Positive

**Carcinogenicity**

May cause cancer. Positive evidence obtained from human epidemiological studies.

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

Hematopoietic System

**Aspiration hazard**

Inhalation may cause pulmonary edema and pneumonia.

**Additional Information**

Repeated toxicity - rats - male and female - oral -120 days - level of no observed harmful effects -100 mg/kg - observed harmful effects

Minimum level of effectiveness -25 mg/kg

Note: Subchronic toxicity

System impact:

After absorption:

excitement

headache

dizzy

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drunk  
Burnout  
Central nervous system disorders  
anaesthesia  
Respiratory arrest  
Subacute toxicity  
After the incubation period:  
Blood phase changes  
Hemolytic effect  
Other hazards cannot be ruled out.  
This substance needs to be handled with special caution

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## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish: Flow cytometry test LC50- *Oncorhynchus mykiss* (rainbow trout) -5.3 mg/l -96 h  
(OECD Testing Guidelines 203)  
Static toxicity test on water fleas and other aquatic invertebrates EC50- *Daphnia magna* -10 mg/l -48 h  
(OECD Testing Guidelines 202)  
Static toxicity test on algae ErC50- *Pseudokirchneriella subcapita* (green algae) -100 mg/l -72 h  
(OECD Testing Guidelines 201)  
Toxicity of Fish (Chronic Toxicity) Flow Test NOEC - *Pimephales promelas* (Fat headed Catfish) -0.8 mg/l -32 days  
Remarks: (ECHA)  
Semi static test for toxicity (chronic toxicity) to water fleas and other aquatic invertebrates NOEC - *Ceriodaphnia dubia*  
-3 mg/l -7 days (US-EPA)

### 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

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## SECTION 13:



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### 13.1 Disposal considerations

**Product**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

**Contaminated packaging**

Dispose of as unused product.

### SECTION 14: Transport information

**DOT (US)**

UN number: UN1114	Packing group: II	Class: 3
Proper shipping name: BENZENE	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: no data available
Environmental Hazards: no		

**IMDG**

UN number: UN1114	Packing group: II	EMS-No: no data available
Proper shipping name: BENZENE		

**IATA**

UN number: UN1114	Packing group: II	Class: 3
Proper shipping name: BENZENE		

### SECTION 15: Regulatory information

- Applicable regulations
- Occupational Disease Prevention and Control Law
- Regulations on the Safety Management of Hazardous Chemicals
- Catalogue of Hazardous Chemicals: Listed
- Regulations on Labor Protection in Workplaces Using Toxic Substances
- Catalogue of Highly Toxic Substances: Listed
- Other regulations
- Please note that waste disposal should also comply with local regulations.

### SECTION 16: Other information

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