

# 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 : (Bicyclo[2.2.1]hepta-2,5-diene)tetracarbonylmolybdenum(0)  
Product Number : B467067  
Brand : aladdin  
CAS-No. : 12146-37-1

### 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

Acute toxicity, Oral (Category 4), H302

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

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

### 2.2 GHS Label elements, including precautionary statements

Pictogram



| Signal word                       | Warning                                                                                                                          |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Hazard statement(s)</b>        |                                                                                                                                  |
| H315                              | Causes skin irritation                                                                                                           |
| H319                              | Causes serious eye irritation                                                                                                    |
| H335                              | May cause respiratory irritation                                                                                                 |
| H302+H312+H332                    | Harmful if swallowed, in contact with skin or if inhaled                                                                         |
| <b>Precautionary statement(s)</b> |                                                                                                                                  |
| 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.                                                       |
| P321                              | Specific treatment (see ... on this label).                                                                                      |
| P330                              | Rinse mouth.                                                                                                                     |
| P302+P352                         | IF ON SKIN: wash with plenty of water.                                                                                           |
| 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. |
| P362+P364                         | Take off contaminated clothing and wash it before reuse.                                                                         |
| 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.                                                               |
| P264+P265                         | Wash hands [and ...] thoroughly after handling. Do not touch eyes.                                                               |
| P301+P317                         | IF SWALLOWED: Get medical help.                                                                                                  |
| P317                              | Get emergency medical help.                                                                                                      |
| 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

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

|                  |                                                   |
|------------------|---------------------------------------------------|
| Synonyms         | : no data available                               |
| Formula          | : C <sub>11</sub> H <sub>8</sub> MoO <sub>4</sub> |
| Molecular weight | : 300.12                                          |
| CAS No.          | : 12146-37-1                                      |
| EC-NO.           | : no data available                               |

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

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| Component                                                 | Classification    | Concentration |
|-----------------------------------------------------------|-------------------|---------------|
| (Bicyclo[2.2.1]hepta-2,5-diene)tetracarbonylmolybdenum(0) |                   |               |
|                                                           | no data available | ≥95%          |

## 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

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

Carbon oxides, Molybdenum 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.

## 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

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 contact with skin and eyes. Avoid formation of dust and aerosols.

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

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

### 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

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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                                   | form: powder color: yellow |
| 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          |
| 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

## SECTION 10: Stability and reactivity

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**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 oxidizing agents

**10.6 Hazardous decomposition products**

Carbon oxides, Molybdenum oxides

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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
- 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**

|                                         |                                            |                                             |
|-----------------------------------------|--------------------------------------------|---------------------------------------------|
| <b>DOT (US)</b>                         |                                            |                                             |
| UN number: no data available            | Packing group: no data available           | Class: no data available                    |
| Proper shipping name: no data available | Reportable Quantity(RQ): no data available | Poison Inhalation Hazard: no data available |
| Environmental Hazards: no               |                                            |                                             |
| <b>IMDG</b>                             |                                            |                                             |
| UN number: no data available            | Packing group: no data available           | EMS-No: no data available                   |
| Proper shipping name: no data available |                                            |                                             |
| <b>IATA</b>                             |                                            |                                             |
| UN number: no data available            | Packing group: no data available           | Class: no data available                    |

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Proper shipping name: no data available

### SECTION 15: Regulatory information

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

### SECTION 16: Other information

|                  |                                                                                                |
|------------------|------------------------------------------------------------------------------------------------|
| Prepared By      | Regulatory Affairs<br>ALADDIN SCIENTIFIC CORPORATION<br>Email: QualityAssurance@aladdinsci.com |
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| Revision Date    | 16-Sep-2025                                                                                    |
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| Revision Summary | SDS sections updated v1                                                                        |

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