

# SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-11

Print Date: 2025-09-13

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

### 1.1 Product identifiers

Product name : Ru(OAc)<sub>2</sub>[(R)-xylbinap]  
Product Number : R396455  
Brand : aladdin  
CAS-No. : 374067-50-2

### 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)

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

Precautionary statement(s)

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

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                                                                               |
|------------------|-------------------------------------------------------------------------------|
| Synonyms         | : Diacetato[(R)-2,2'-bis[di(3,5-xylyl)phosphino]-1,1'-binaphtyl]ruthenium(II) |
| Formula          | : C <sub>56</sub> H <sub>54</sub> O <sub>4</sub> P <sub>2</sub> Ru            |
| Molecular weight | : 954.04                                                                      |
| CAS No.          | : 374067-50-2                                                                 |
| EC-NO.           | : no data available                                                           |

| Component                                | Classification    | Concentration     |
|------------------------------------------|-------------------|-------------------|
| <b>Ru(OAc)<sub>2</sub>[(R)-xylbinap]</b> | no data available | no data available |

## 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.

#### In case of eye contact

Separate the eyelids and rinse with running water or saline. Consult a doctor.

#### 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, Oxides of phosphorus, Ruthenium oxide

### 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

Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.

### 6.2 Environmental precautions

Prohibit the product from entering the ground water, water course or sewage system.

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

no data available

### 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

no data available

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

Store in a cool place. Keep the container tightly closed and store in a dry and ventilated place. Recommended storage temperature 2-8 °C

### 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

The gloves must be checked before use. Please use the correct method 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 contaminated gloves carefully in accordance with relevant laws and regulations and effective laboratory procedures and procedures. Please clean and dry the protective gloves selected for your hands, which must comply with the specifications given in Regulation (EU) 2016/425 and the en 374 standard derived therefrom.

#### Body Protection

Impermeable clothing, flame-retardant and anti-static protective clothing, and the type of protective equipment must be selected according to the concentration and content of the dangerous substance in 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: dark brown |
| 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              |

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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

no data available

### 10.5 Incompatible materials

no data available

### 10.6 Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

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

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no data available  
**Specific target organ toxicity - repeated exposure**  
 no data available  
**Aspiration hazard**  
 no data available  
**Additional Information**

**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  
 no data available  
**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 data available |                                            |                                             |

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**IMDG**

|                                         |                                  |                           |
|-----------------------------------------|----------------------------------|---------------------------|
| UN number: no data available            | Packing group: no data available | EMS-No: no data available |
| Proper shipping name: no data available |                                  |                           |

**IATA**

|                                         |                                  |                          |
|-----------------------------------------|----------------------------------|--------------------------|
| UN number: no data available            | Packing group: no data available | Class: no data available |
| Proper shipping name: no data available |                                  |                          |

**SECTION 15: Regulatory information**

**SECTION 16: Other information**

|                         |                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Prepared By</b>      | Regulatory Affairs<br>ALADDIN SCIENTIFIC CORPORATION<br>Email: <a href="mailto:QualityAssurance@aladdinsci.com">QualityAssurance@aladdinsci.com</a> |
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| <b>Revision Date</b>    | 11-Sep-2025                                                                                                                                         |
| <b>Print Date</b>       | 13-Sep-2025                                                                                                                                         |
| <b>Revision Summary</b> | SDS sections updated v1                                                                                                                             |

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