

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

# SAFETY DATA SHEET

Version: v1

Revision Date: 2024-06-26

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

### 1.1 Product identifiers

Product name : Dimethylammonium Dichlorotri(μ-chloro)bis[(S)-(-)-2,2'-bis(diphenylphosphino)-1,1'-binaphthyl]diruthenate(II)  
Product Number : S138436  
Brand : aladdin  
CAS-No. : 199541-17-8

### 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)

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

no data available

Hazard statement(s)

Precautionary statement(s)

### 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	: [NH <sub>2</sub> Me <sub>2</sub> ][(RuCl((S)-binap)) <sub>2</sub> (μ-Cl) <sub>3</sub> ]
Formula	: (CH <sub>3</sub> ) <sub>2</sub> NH <sub>2</sub> + [C <sub>88</sub> H <sub>64</sub> Cl <sub>5</sub> P <sub>4</sub> Ru <sub>2</sub> ]&#8722;
Molecular weight	: 1670.84
CAS No.	: 199541-17-8
EC-NO.	: no data available

Component	Classification	Concentration
Dimethylammonium Dichlorotri(μ-chloro)bis[(S)-(-)-2,2'-bis(diphenylphosphino)-1,1'-binaphthyl]diruthenate(II)	no data available	95%

**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. Move out of dangerous area.

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

In case of eye contact, rinse thoroughly 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

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

Suitable extinguishing media

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

Unsuitable extinguishing media

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no data available

## 5.2 Special hazards arising from the substance or mixture

Carbon oxides,nitrogen oxide,Phosphorus oxide,hydrogen chloride gas,Ruthenium

## 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

Prevent the generation of dust. Prevent inhalation of vapors, aerosols, or gases. Evacuate personnel to a safe area.

### 6.2 Environmental precautions

On the premise of ensuring safety, take measures to prevent further leakage or overflow. Do not allow the product to enter the sewer. Prevent discharge into the surrounding environment.

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

Sweep and shovel away. Collect the spill using an anti electric vacuum cleaner or a wet brush and place it in a container, and dispose of it according to local regulations (see Section 13). Store in a suitable closed container for disposal. If the container overflows, use an electrically protected vacuum cleaner or wet brush to remove it, and then load it into the container and dispose of it according to local regulations (see Part 13).

### 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

Keep away from open flames, hot surfaces and sources of ignition.Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

### 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.Suggested storage temperature:2-8°CInflation handling and storageSensitive to water and moisture.

### 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

no data available

## 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	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

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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

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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

strong oxidant

### 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

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Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

There are no components in this product at levels greater than or equal to 0.1% that have been identified by IARC as possible or definite human carcinogens.

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

Inhalation may be harmful. May cause respiratory irritation.

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

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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

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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: no data available

Packing group: no data available

Class: 4.1

Proper shipping name: FLAMMABLE

Reportable Quantity(RQ): no data

Poison Inhalation Hazard: no data

SOLID, ORGANIC, N.O.S. ((S)-

available

available

[(RuCl(BINAP))<sub>2</sub>(μ-Cl)<sub>3</sub>][NH<sub>2</sub>Me<sub>2</sub>])

Environmental Hazards: No

### IMDG

UN number: no data available

Packing group: no data available

EMS-No: no data available

Proper shipping name: FLAMMABLE SOLID, ORGANIC, N.O.S. ((S)-[(RuCl(BINAP))<sub>2</sub>(μ-Cl)<sub>3</sub>][NH<sub>2</sub>Me<sub>2</sub>])

### IATA

UN number: no data available

Packing group: no data available

Class: 4.1

Proper shipping name: FLAMMABLE SOLID, ORGANIC, N.O.S. ((S)-[(RuCl(BINAP))<sub>2</sub>(μ-Cl)<sub>3</sub>][NH<sub>2</sub>Me<sub>2</sub>])

## SECTION 15: Regulatory information

no data available

## SECTION 16: Other information

<b>Prepared By</b>	Regulatory Affairs ALADDIN SCIENTIFIC CORPORATION Email: QualityAssurance@aladdinsci.com
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