ALADDIN SCIENTIFIC CORPORATION
14078 Meridian Parkway, Riverside, CA. 92518

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	:	(Acetylacetonato)dicarbonylrhodium(I)
Product Number	:	A118542
Brand	:	aladdin
CAS-No.	:	14874-82-9

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)

Flammable solids (Category 2), H228

Eye irritation (Category 2), H319

Skin sensitization (Category 1), H317

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H228	Flammable solid
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
Precautionary statement(s)	
P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting/.../] equipment.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and ...] thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P337+P313	IF eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use ... to extinguish.
P501	Dispose of contents/container to an approved waste disposal plant.

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : CARAC;Rh(CO)2acac;Dicarbonyl(2,4-pentanedionato)rhodium(I);Acetylacetonatorhodium(I) dicarbonyl;Rhodium(I) dicarbonyl acetylacetonate;Dicarbonyl-acetylacetonato-rhodium(I)

Formula : Rh(CO)2(C5H7O2)

Molecular weight : 258.03

CAS No. : 14874-82-9

EC-NO. : 238-947-9

Component	Classification	Concentration
(Acetylacetonato)dicarbonylrhodium(I)		
	Flam. Sol. 2; Eye Irrit. 2; Skin Sens. 1; H228, H319, H317	≥99%

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 thoroughly with plenty of water for at least 15 minutes and consult a physician.
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

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 Rhodium/rhodium 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.

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. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

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

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing

and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Advice on protection against fire and explosion Provide appropriate exhaust ventilation at places where dust is formed.Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge. Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. 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. Store in cool place. Air sensitive. Store under nitrogen.

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Component	CAS No.	Value	Control parameters	Basis
Dicarbonylacetylacetonatorhodium(I)	14874-82-9	TWA	0.1 mg/m3	United States. Occupational Exposure Limits (OSHA) - Table Z-1 Air Pollutant Limits
		TWA	1 mg/m3	United States. ACGIH Threshold Limit (TLV)
	Note	Cannot be classified as a human carcinogen		

		TWA	0.1 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	0.1 mg/m3	United States. Contact limits recommended by NIOSH
		PEL	0.1 mg/m3	The permitted exposure limit for chemical contaminants in California No107 (8)

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

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(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.

Body Protection

Complete suit protecting against chemicals, 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: solid color: dark green
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	154 - 156 °C - lit.
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	0,025 hPa at 20 °C
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	insoluble
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	141 °C
q) Decomposition temperature	> 140 °C -
r) Viscosity	no data available
s) Explosive properties N	Risk of explosion if heated under confinement.
t) Oxidizing properties N	no data available

9.2 Other safety information

Minimum ignition energy < 1 mJ

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

Exposure to air may affect product quality. Heat, flames and sparks.

10.5 Incompatible materials

Strong oxidizing agents, Steel (all types and surface treatments), Aluminum

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Dermal: No data available

Skin corrosion/irritation
no data available
Serious eye damage/eye irritation
Eyes - Rabbit Result: Eye irritation Remarks: No data available
Respiratory or skin sensitisation
no data available
Germ cell mutagenicity
no data available
Carcinogenicity
IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
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
May liberate 2,4-pentanedione upon decomposition. 2,4-Pentanedione has the following toxicological hazards: toxic, irritant, neurological hazard, teratogen, possible mutagen, target organ - thymus. In humans, 2,4-pentanedione is reported to cause contact dermatitis and contact urticaria.

SECTION 12: Ecological information

12.1 Toxicity

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

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: 3467	Packing group: III	Class: 6.1
Proper shipping name: ORGANOMETALLIC COMPOUND, SOLID, TOXIC, N.O.S. (Dicarbonylacetylacetonato-rhodium(I))	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: no data available
Environmental Hazards: no		

IMDG

UN number: 3467	Packing group: III	EMS-No: no data available
Proper shipping name: ORGANOMETALLIC COMPOUND, SOLID, TOXIC, N.O.S. (Dicarbonylacetylacetonato-rhodium(I)		

IATA

UN number: 3467	Packing group: III	Class: 6.1
Proper shipping name: ORGANOMETALLIC COMPOUND, SOLID, TOXIC, N.O.S. (Dicarbonylacetylacetonato-rhodium(I)		

SECTION 15: Regulatory information

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

SECTION 16: Other information

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