

SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-10

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

1.1 Product identifiers

Product name : Hexachloroiridium Acid Hydrate
Product Number : H129129
Brand : aladdin
CAS-No. : 110802-84-1

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)

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

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

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

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Synonyms	: Dihydrogen hexachloroiridate(IV) hydrate;Hexachloroiridium(IV) acid hydrate;Hydrogen iridium hexachloride;Chloroiridic acid;Hydrogen hexachloroiridate(IV) hexahydrate
Formula	: H ₂ IrCl ₆ ·xH ₂ O
Molecular weight	: 406.95 (anhydrous basis)
CAS No.	: 110802-84-1
EC-NO.	: no data available

Component	Classification	Concentration
Hexachloroiridium Acid Hydrate		
	no data available	Ir ≥36%

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

Immediately remove contaminated clothing and shoes. Rinse with soap and plenty of water. Immediately transport the patient to the hospital. Consult a doctor.

In case of eye contact

Thoroughly rinse 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

This substance causes significant damage to mucosal tissue, upper respiratory tract, eyes, and skin., Spasm, inflammation, sore throat, spasm, inflammation, bronchitis, pneumonia, pulmonary edema, burning sensation: cough, wheezing, laryngitis, shortness of breath, headache

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 (CO₂),Dry powder

Unsuitable extinguishing media

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no data available

5.2 Special hazards arising from the substance or mixture

hydrogen chloride gas, iridium oxide

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

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. 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

Soak up with inert absorbent material and dispose of as hazardous waste. Place in a suitable closed container 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 the formation of dust and aerosols. Provide suitable exhaust equipment in areas with dust generation.

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. The opened container must be carefully resealed and kept in an upright position to prevent leakage.

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****8.2 Exposure controls**

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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	65°C
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

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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

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

strong oxidantstrong oxidant

10.6 Hazardous decomposition products

no data available

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

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In studies on animals, there has been limited evidence of carcinogens in this product and none greater than or equal to 0. 1% of the ingredients are identified by IARC as possible or probable 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

Harmful by inhalation. This substance has strong destructive power on tissues, mucous membranes, and upper respiratory tract.

Additional Information

no data available

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

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Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: no data available	Packing group: no data available	Class: 8
Proper shipping name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Hydrogen hexachloroiridate(IV)hydrate)	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: no data available
Environmental Hazards: No		

IMDG

UN number: no data available	Packing group: no data available	EMS-No: no data available
Proper shipping name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Hydrogen hexachloroiridate(IV)hydrate)		

IATA

UN number: no data available	Packing group: no data available	Class: 8
Proper shipping name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Hydrogen hexachloroiridate(IV)hydrate)		

SECTION 15: Regulatory information

no data available

SECTION 16: Other information

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