

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 : Rhodium solution
Product Number : R111458
Brand : aladdin
CAS-No. : 7440-16-6(HCl)

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)
Corrosive to Metals (Category 1), H290

Skin corrosion (Sub-category 1B), H314

Serious eye damage (Category 1), H318

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

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)	
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H335	May cause respiratory irritation
H401	Toxic to aquatic life
Precautionary statement(s)	
P234	Keep only in original container.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and ...] thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
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.
P405	Store locked up.
P406	Store in corrosive resistant/... container with a resistant inner liner.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
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

3.2 Mixtures

Synonyms	: Rh Black;Rhodium black;Rhodium(0) black
Formula	: no data available
Molecular weight	: no data available

Component	Classification	Concentration
Hydrochloric acid		
CAS-No. : 7647-01-0	Metal corrosion category 1; Skin corrosion/ Stimulation category 1B;	
EC-No. : 231-595-7	Serious eye injury/ Eye irritation category 1; Specific target Organ system toxicity (first contact) Don't 3; Acute (short-term) aquatic hazards Category 2; H290, H314, H318, H335, H401	

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

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

Water, Foam, Carbon dioxide (CO₂), Dry powder

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

Hydrogen chloride gas is nonflammable. The surrounding fire source may cause the release of hazardous vapors

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

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6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. 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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Prohibit metal containers Tight closure

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Hazard composition and occupational exposure limits :

Component	CAS No.	Value	Control parameters	Basis
Hydrochloric Acid	7647-01-0	MAC	7.5 mg/m3	Occupational exposure limits for hazardous factors in the workplace - chemical hazardous factors

8.2 Exposure controls

Appropriate engineering controls

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Replace contaminated clothing immediately. Use skin protective lotion. Wash hands and wash your face after using this substance.

Personal protective equipment

Eye/face protection

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

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

Acid-resistant protective clothing

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

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	-11.8°C
f) Initial boiling point and boiling range	-84.9°C
g) Flash point	17°C
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	1.05
n) Water solubility	no data available

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- 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

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

Bases, Amines, Alkali metals, Metals, permanganates, for example potassium permanganate, Fluorine, metal acetylides, hexalithium disilicideMetals

10.6 Hazardous decomposition products

In the event of fire: See Section 5 Fire Fighting Measures.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract Dermal: No data available

Hydrochloric Acid Acute toxicity Oral: No data available Inhalation: Cough Difficulty in breathing Inhalation: absorption Symptoms: mucosal irritations, Cough, Shortness of breath, Inhalation may lead to the formation of oedemas in the respiratory tract., Possible damages:, damage of respiratory tract, tissue damage Dermal: No data available

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Skin corrosion/irritation

Mixture causes burns. Skin - reconstructed human epidermis (RhE) Result: Corrosive (OECD Test Guideline 431)

Serious eye damage/eye irritation

Mixture causes serious eye damage. Risk of blindness! Eyes - Bovine cornea Result: Corrosive (OECD Test Guideline 437)

Respiratory or skin sensitisation

Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells Result: Conflicting results have been seen in different studies.

Carcinogenicity

Carcinogenicity - Did not show carcinogenic effects in animal experiments. (IUCLID)

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

May cause respiratory irritation. The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation. Acute inhalation toxicity - mucosal irritations, Cough, Shortness of breath, Inhalation may lead to the formation of oedemas in the respiratory tract., Possible damages:, damage of respiratory tract, tissue damage

Specific target organ toxicity - repeated exposure

The mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

no data available

Additional Information

RTECS: MW4025000 Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish LC50 - *Gambusia affinis* (Mosquito fish) - 282 mg/l - 96 h Remarks: (IUCLID)

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

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12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Dispose of the remaining and non recyclable solution to a licensed company.

Contaminated packaging

no data available

SECTION 14: Transport information

DOT (US)

UN number: 1789

Packing group: II

Class: 8

Proper shipping name: HYDROCHLORIC ACID

Poison Inhalation Hazard: no data

Reportable Quantity(RQ): no data

available

available

Environmental Hazards: no

IMDG

UN number: 1789

Packing group: II

EMS-No: no data available

Proper shipping name: HYDROCHLORIC ACID

IATA

UN number: 1789

Packing group: II

Class: 8

Proper shipping name: HYDROCHLORIC ACID

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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