

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-16

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

1.1 Product identifiers

Product name : Hydroquinone
Product Number : H431621
Brand : aladdin
CAS-No. : 123-31-9

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)

Acute toxicity, Oral (Category 4), H302

Serious eye damage (Category 1), H318

Skin sensitization (Category 1), H317

Germ cell mutagenicity (Category 2), H341

Carcinogenicity (Category 2), H351

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

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

2.2 GHS Label elements, including precautionary statements

Pictogram



Danger

Signal word

Hazard statement(s)

H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H341	Suspected of causing genetic defects
H351	Suspected of causing cancer
H410	Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and ...] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P321	Specific treatment (see ... on this label).
P330	Rinse mouth.
P391	Collect spillage.
P302+P352	IF ON SKIN: wash with plenty of water.
P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.
P203	Obtain, read and follow all safety instructions before use.
P264+P265	Wash hands [and ...] thoroughly after handling. Do not touch eyes.
P301+P317	IF SWALLOWED: Get medical help.
P305+P354+P338	IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P318	if exposed or concerned, get medical advice.
P317	Get emergency medical help.

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : 1,4-Dihydroxybenzene, Quinol, Hydroquinone

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Formula	: C6H6O2
Molecular weight	: 110.11
CAS No.	: 123-31-9
EC-NO.	: 204-617-8

Component	Classification	Concentration
Hydroquinone	Acute Tox. 4; Eye Dam. 1; Skin Sens. 1; Muta. 2; Carc. 2; Aquatic Acute 1; Aquatic Chronic 1; H302, H318, H317, H341, H351, H400, H410 M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 1	for synthesis

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

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. Consult a physician.

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: immediately make victim drink water (two glasses at most). 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

Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

Carbon oxides Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

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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

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. 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). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Work under hood. Do not inhale substance/mixture. 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 at room temperature.

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

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hydroquinone	123-31-9	PC-TWA	1 mg/m3	Occupational exposure limits for workplace harmful factors - chemical harmful factors
		PC-STEL	2 mg/m3	Occupational exposure limits for workplace harmful factors - chemical harmful factors

Biological limits

Component	CAS No.	parameters	Value	Biological specimens	Basis
hydroquinone	123-31-9	High-iron hemoglobin	1.5% Hb	in the blood	ACGIH - Biological Limits (BEI)
	Note	During or during work			

8.2 Exposure controls

Appropriate engineering controls

Replace contaminated clothing immediately. Use skin protection lotions. Wash your hands and 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

protective clothing

Respiratory protection

Recommended Filter type: Filter A-(P2) 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	form: powder or crystal or flakes color: white to off-white
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	171-175 (°C)
f) Initial boiling point and boiling range	285-287°C
g) Flash point	165°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	1.332
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

SECTION 10: Stability and reactivity

10.1 Reactivity

Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

increased reactivity with: Aluminum Risk of explosion with: Oxygen Exothermic reaction with: Strong oxidizing agents alkalines Violent reactions possible with: Sodium hydroxide

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10.4 Conditions to avoid

Air Light. Strong heating.

10.5 Incompatible materials

no data available

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

LD50 Oral - Rat - female - 367.3 mg/kg (OECD Test Guideline 401) Inhalation: No data Data LD50 Dermal - Rabbit - Male and female - > 2,000 mg/kg

Skin corrosion/irritation

Skin - Rabbit Results: No Skin Irritation - 24 h Note: (ECHA)

Serious eye damage/eye irritation

Causes serious eye damage. (European Community (EC) Regulation No. 1272/2008 Appendix VI)

Respiratory or skin sensitisation

Local Lymph node test (LLNA) - mice Results: See user's self-defined instructions Contact with the skin can cause allergies. (OECD Test Guideline 429)

Germ cell mutagenicity

Suspected of causing genetic defects.

Carcinogenicity

no data available

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

RTECS: MX3500000 Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

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Toxicity to fish Flow test LC50 - Oncorhynchus mykiss (rainbow trout) - 0.638 mg/l - 96 h (OECD Test Guidelines 203) for otter and other aquatic Toxicity of spineless vertebrate semi-static test EC50 - Daphnia magna (water otter) - 0.134 mg/l - 48 h (OECD Test Guidelines 202) Toxicity to algae Static test EC50 - Pseudokirchneriella subcapitata - 0.33 mg/l - 72 h (OECD Test Guidelines 201) Static Test NOEC - Pseudokirchneriella Subcapitata - 0.019 mg/l - 72 h (OECD Test Guidelines 201)

12.2 Persistence and degradability

Biodegradable Aerobics - Exposure time 14 d Results: 70 % - Rapid biodegradable. (OECD Test Guideline 301C)

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

Hand over the remaining and non-recyclable solution to a licensed company.

Contaminated packaging

no data available

SECTION 14: Transport information

DOT (US)

UN number: 3077

Packing group: III

Class: 9

Proper shipping name:

Reportable Quantity(RQ): no data

Poison Inhalation Hazard: no data

ENVIRONMENTALLY HAZARDOUS

available

available

SUBSTANCE, SOLID, N.O.S.

(hydroquinone)

Environmental Hazards: yes

IMDG

UN number: 3077

Packing group: III

EMS-No: no data available

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (hydroquinone)

IATA

UN number: 3077

Packing group: III

Class: 9

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Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (hydroquinone)

SECTION 15: Regulatory information

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

SECTION 16: Other information

Prepared By	Regulatory Affairs ALADDIN SCIENTIFIC CORPORATION Email: QualityAssurance@aladdinsci.com
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