

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name	Hydroquinone
CAS number	123-31-9
Synonyms	1,4-Dihydroxybenzene; 1,4-Benzenediol

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals
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1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
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Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC


SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute oral toxicity	Category 4
Serious Eye Damage/Eye Irritation	Category 1
Skin Sensitization	Category 1
Germ Cell Mutagenicity	Category 2
Carcinogenicity	Category 2

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	Harmful if swallowed. Cause serious eye damage. May cause an allergic skin reaction. Suspected of causing genetic defects. Suspected of causing cancer.
Precautionary statements:	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.
Response	IF exposed or concerned: Get medical attention/advice.
Skin	IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eyes	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
Storage	Store locked up.
Disposal	Dispose of contents/container to an approved waste disposal plant.

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

Very toxic to aquatic life. May form combustible dust concentrations in air. May cause pulmonary edema.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Hydroquinone	1,4-Dihydroxybenzene; 1,4-Benzenediol	123-31-9	99%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Obtain medical attention.
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.
In case of eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
If swallowed	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device.

4.2 Most important symptoms and effects, both acute and delayed

Causes eye burns. May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Water spray. Carbon dioxide. Dry chemical. Chemical foam.
Unsuitable extinguishing media	No information available.

5.2 Specific hazards arising from the substance or mixture

5.3 Special protective equipment and precautions for firefighters

5.4 Further information

Flash Point	165 °C / 329 °F
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Autoignition Temperature

520 °C / 968 °F

Explosion limits

Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

NFPA

Health	Flammability	Instability	Physical hazards
2	1	1	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Remove all sources of ignition. Do not get in eyes, on skin, or on clothing.

6.2 Environmental precautions

Should not be released into the environment. See Section 12 for additional ecological information.

6.3 Methods and materials for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not breathe vapors/dust. Do not get in eyes, on skin, or on clothing. Do not ingest. Keep away from open flames, hot surface and sources of ignition.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from direct sunlight.

Incompatibilities

No information available

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Hydroquinone	PEL: (Vacated) TWA	2 mg/m ³
	PEL: TWA	2mg/m ³

US. ACGIH Threshold Limit Values

Component	Type	Value
Hydroquinone	TLV: TWA	1 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Hydroquinone	IDLH	50 mg/m ³
	Ceiling	2 mg/m ³

Biological occupational exposure limits

No information available

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are closed to the workstation location.

Personal protective equipment

Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Handle in accordance with good industrial hygiene and safety practice.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	Off-white
Odor	Odorless
Odor Threshold	No information available
pH	3.75 , 70 g/l aq.sol
Melting Point/Range	170 - 174 °C / 338 - 345.2 °F
Boiling Point/Range	285 - 287 °C / 545 - 548.6 °F @ 760 mmHg
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	1 mmHg @ 132 °C
Vapor Density	3.8 (Air = 1.0)
Density	1.32
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	520 °C / 968 °F
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	C6H6O2
Molecular Weight	110.11
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

None known, based on information available.

10.2 Chemical stability

Stable. Air sensitive. Light sensitive.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Avoid dust formation. Heat, flames and sparks. Exposure to air. Exposure to light. Incompatible products.

10.5 Incompatible materials

Strong oxidizing agents, strong base, alkaline.

10.6 Hazardous decomposition products

Carbon monoxide, carbon dioxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

No acute toxicity information is available for this product.

Skin corrosion/irritation

No information available.

Serious eye damage/eye irritation

Severe eye irritant

Respiratory or skin sensitization

May cause sensitization by skin contact.

Germ cell mutagenicity

Mutagenic Category 2

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Hydroquinone	123-31-9	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

None known

Specific target organ toxicity - repeated exposure

None known

Reproductive toxicity

Experiments have shown reproductive toxicity effects on laboratory animals.

Chronic effects

No information available.

11.2 Additional Information

No information available.

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results
Hydroquinone	EC50	Freshwater Algae	13.5 mg/L 120 h
	EC50	Freshwater Algae	0.335 mg/L 72 h
	LC50	Freshwater Fish	0.17 mg/L 96 h
	LC50	Freshwater Fish	0.1-0.18 mg/L 96 h
	LC50	Freshwater Fish	0.044 mg/L 96 h
	EC50	Microtox	0.038 mg/L 15 min
	EC50	Microtox	0.0382 mg/L 30 min
	EC50	Microtox	0.042 mg/L 5 min
	EC50	Microtox	23.75 mg/L 60 min
	EC50	Water Flea	0.29 mg/L 48 h

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

Yes, log Pow = 0.5.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN-No

UN3077

Proper Shipping Name

ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.

Hazard Class

9

Packing Group

III

IMDG

UN-No UN3077
Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.
Hazard Class 9
Packing Group III

IATA

UN-No UN3077
Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.
Hazard Class 9
Packing Group III

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not listed

CERCLA Hazardous Substance List (40 CFR 302.4)

Listed (HYDROQUINONE (123-31-9)) 100 lb

SARA 304 Emergency release notification

Not listed

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous

Listed, Acute Health Hazard, Chronic Health Hazard

SARA 313 (TRI reporting)

Listed, (HYDROQUINONE (123-31-9)) Weight: 99%, Threshold Values%: 1.0

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Listed, (HYDROQUINONE (123-31-9))

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Listed, (HYDROQUINONE (123-31-9))

Safe Drinking Water Act

Not listed

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not listed

US state regulations

US. Massachusetts RTK - Substance List

Listed (HYDROQUINONE (123-31-9))

US. New Jersey Worker and Community Right-to-Know Act

Listed (HYDROQUINONE (123-31-9))

US. Pennsylvania Worker and Community Right-to-Know Law

Listed (HYDROQUINONE (123-31-9))

California Proposition 65

Not listed

SECTION 16: Other information

Issue date: 09/26/2009

Revision 1: 06/03/2019

Revision 2: 07/23/2024

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.