

Safety Data Sheet

Hydroquinone

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Hydroquinone
Recommended Use: Science education applications
Synonyms: 1,4-Dihydroxybenzene; Quinol; Dihydroquinone
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing genetic defects. Suspected of causing cancer. Very toxic to aquatic life.

GHS Classification:

Serious Eye Damage/Eye Irritation Category 1, Skin Sensitisation Category 1, Hazardous to the aquatic environment - Acute Category 1, Skin Corrosion/Irritation Category 2, Germ Cell Mutagenicity Category 2, Carcinogenicity Category 2, Acute Toxicity - Oral Category 4

Other Safety Precautions: IF exposed or concerned: Get medical advice/attention.

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Hydroquinone (CAS# 123-31-9) 90 - 100%	123-31-9	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin Contact: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Ingestion: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Section 5 Firefighting Procedures

Extinguishing Media: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: N/A
Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

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Section 6

Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Ventilate the contaminated area. Avoid the generation of dusts during clean-up.

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Do not allow the spilled product to enter public drainage system or open waterways. Collect spillage.

Section 7

Handling and Storage

Handling:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required. Keep container tightly closed in a cool, well-ventilated place. Use only in well-ventilated areas. Toxic by inhalation and if swallowed. Avoid contact with skin and eyes. After contact with skin, wash immediately with plenty of water.

Storage:

Store locked up. Keep container tightly closed in a cool, well-ventilated place.

Storage Code:

Blue - Toxic. Store separately in a secured area.

Section 8

Protection Information

Chemical Name	ACGIH (TWA)	(STEL)	OSHA PEL (TWA)	(STEL)
Hydroquinone (CAS# 123-31-9) 90 - 100%	1 mg/m3 TWA	N/A	2 mg/m3 TWA	N/A

Control Parameters

Engineering Measures:

No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

Personal Protective Equipment (PPE):

Lab coat, apron, eye wash, safety shower.

Respiratory Protection:

No respiratory protection required under normal conditions of use. Wear a NIOSH approved respirator if any exposure is possible.

Respirator Type(s):

Wear a NIOSH/MSHA-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions

Eye Protection:

Wear chemical splash goggles when handling this product. Have an eye wash station available. Wear safety glasses with side shields and a Face shield

Skin Protection:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves:

Natural rubber, Nitrile

Section 9

Physical Data

Formula: 1,4-(HO)2C6H4
Molecular Weight: 110.11 g/mole
Appearance: Colorless Crystalline Solid
Odor: No data available
Odor Threshold: No data available
pH: No data available
Melting Point: No data available 170 C
Boiling Point: No data available 287 C
Flash Point: No data available 165 C
Flammable Limits in Air: N/A N/A

Vapor Pressure: N/A
Evaporation Rate (BuAc=1): N/A
Vapor Density (Air=1): 3.81
Specific Gravity: 1.358
Solubility in Water: Soluble
Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: N/A

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Section 10

Reactivity Data

Reactivity:	No data available
Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	Exposure to light. Exposure to air. Keep lid tightly closed when not in use.
Incompatible Materials:	Caustics (bases), Strong oxidizing agents
Hazardous Polymerization:	Will not occur

Section 11

Toxicity Data

Routes of Entry	Inhalation, ingestion, eye or skin contact.
Symptoms (Acute):	Respiratory disorders, , Eye disorders, Liver disorders, Allergies, Impaired Kidney Function, Cardiovascular system, Gastrointestinal,, Central Nervous System disorders,
Delayed Effects:	No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Hydroquinone (CAS# 123-31-9) 90 - 100%	123-31-9	Oral LD50 Rat 320 mg/kg Oral LD50 Mouse 350 mg/kg	Dermal LD50 MAMMAL 5970 mg/kg	Not determined

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
No data available	123-31-9	Not listed	Not listed	Not listed

Chronic Effects:

Mutagenicity:	Evidence of a mutagenic effect.
Teratogenicity:	No evidence of a teratogenic effect (birth defect).
Sensitization:	Evidence of a sensitization effect.
Reproductive:	No evidence of negative reproductive effects.
Target Organ Effects:	
Acute:	See Section 2
Chronic:	Tests on laboratory animals indicate material may produce adverse mutagenic and reproductive effects.

Section 12

Ecological Data

Overview:	Severe ecological hazard. This product may be toxic to plants and/or wildlife. Highly/very toxic to fish and other water organisms.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	No data
Other Adverse Effects:	No data

Chemical Name	CAS Number	Eco Toxicity
Hydroquinone (CAS# 123-31-9) 90 - 100%	123-31-9	96 HR LC50 BRACHYDANIO RERIO 0.17 MG/L 48 HR EC50 DAPHNIA MAGNA 0.29 MG/L 120 HR EC50 DESMODESMUS SUBSPICATUS 13.5 MG/L 72 HR EC50 PSEUDOKIRCHNERIELLA SUBCAPITATA 0.335 MG/L

Section 13

Disposal Information

Disposal Methods:	Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s):	Not Determined

Section 14

Transport Information

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Ground - DOT Proper Shipping Name:

UN number: 3077 Class: 9 Packing group: III EMS-No: F-A, S-F
Proper shipping name: ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, SOLID, N.O.S. (Hydroquinone) Marine pollutant:
No

Air - IATA Proper Shipping Name:

UN number: 3077 Class: 9 Packing group: III Proper shipping
name: Environmentally hazardous substance, solid, n.o.s.
(Hydroquinone)

Section 15

Regulatory Information

TSCA Status:

All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Hydroquinone (CAS# 123-31-9) 90 - 100%	123-31-9	Hydroquinone	No	100 lb final RQ; 45.4 kg final RQ	500 lb lower TPQ; 10000 lb upper TPQ	No

California Prop 65:

No California Proposition 65 ingredients

Section 16

Additional Information

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health