



## Material Safety Data Sheet Hydroquinone

### Section 1 - Chemical Product and Company Identification

**MSDS Name:**

Hydroquinone

**Catalog Numbers:**

LC15490

**Synonyms:****Company Identification:**

LabChem, Inc.  
200 William Pitt Way  
Pittsburgh, PA 15238

**Company Phone Number:**

(412) 826-5230

**Emergency Phone Number:**

(800) 424-9300

**CHEMTREC Phone Number:**

(800) 424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
123-31-9	Hydroquinone	100

### Section 3 - Hazards Identification

#### Emergency Overview

**Appearance:** *Colorless to light tan crystals.*

**Caution!** Eye contact may result in permanent eye damage. Possible risks of irreversible effects. Harmful if swallowed. May cause allergic skin reaction. Causes eye and skin irritation. May cause respiratory tract irritation. May cause methemoglobinemia. Light sensitive. Air sensitive. May cause dermatitis. May cause reproductive and fetal effects.

**Target Organs:** *Central nervous system, eyes, skin.*

#### Potential Health Effects

**Eye:**

May result in corneal injury. May cause conjunctivitis and keratitis. Causes eye irritation and possible burns. May cause redness, pain, blurred vision and possible eye damage.

**Skin:**

May cause skin sensitization. May cause dermatitis. May be harmful if absorbed through the skin. Repeated exposure may cause hyperpigmentation of fair skin and depigmentation of dark skin. Causes skin irritation and possible burns. Substance is readily absorbed through the skin.



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**Ingestion:**

Harmful if swallowed. May cause severe irritation of the digestive tract. May cause dizziness, nausea, sense of suffocation, increased respiratory rate, vomiting, pallor, muscle twitching, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), delirium, collapse. May cause green or brownish green urine which continues to darken upon standing. May cause liver damage leading to jaundice. May cause harmful nervous system effects, including tremors and convulsions.

**Inhalation:**

Causes cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood). May cause respiratory tract irritation. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Central nervous system effects may include confusion, ataxia (failure of muscular coordination), vertigo, tinnitus, weakness, disorientation, lethargy, drowsiness, and finally coma. May be harmful if inhaled. May cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Pure hydroquinone does not readily form a vapor at room temperature. The dust may cause irritation of the nose, throat and upper respiratory tract. In the presence of air and moisture, hydroquinone dust may react to form irritating quinone, which forms a vapor at room temperature. The rate of this reaction depends on the pH of the medium, with alkaline solutions reacting more readily. Therefore, exposures to hydroquinone dust may involve exposure to quinone vapor, which is a respiratory irritant. The degree of irritation depends on how much quinone is formed.

**Chronic:**

Prolonged or repeated skin contact may cause sensitization dermatitis and possible destruction and/or ulceration. May cause methemoglobinemia, which is characterized by chocolate-brown colored blood, headache, weakness, dizziness, breath shortness, cyanosis, rapid heart rate, unconsciousness and possible death. May cause reproductive and fetal effects. Possible risk of irreversible effects.

## Section 4 - First Aid Measures

**Eyes:**

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

**Skin:**

Get medical aid at once. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:**

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:**

Get medical aid at once. Move victim to fresh air immediately. If breathing has stopped, give artificial respiration.

**Notes to Physician:**

Treat symptomatically and supportively.



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### Section 5 - Fire Fighting Measures

**General Information:**

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:**

For small fires, use dry chemical, carbon dioxide, or alcohol-resistant foam.

**Autoignition Temperature:**

550 °C (1,022 °F)

**Flash Point:**

165 °C (329 °F)

**NFPA Rating:**

CAS# 123-31-9: health-2; flammability-1; instability-1

**Explosion Limits:**

Lower: N/A Upper: N/A

### Section 6 - Accidental Release Measures

**General Information:**

Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Provide ventilation.

### Section 7 - Handling and Storage

**Handling:**

Wash thoroughly after handling. Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

**Storage:**

Store in a cool, dry area. Do not store in direct sunlight.

### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Provide local exhaust ventilation to meet OSHA exposure limits.

**Exposure Limits:**

Chemical Name:	ACGIH	NIOSH	OSHA
Hydroquinone	2 mg/m <sup>3</sup> TWA	50 mg/m <sup>3</sup> IDLH	2 mg/m <sup>3</sup> TWA

**OSHA Vacated PELs:**

Hydroquinone: 2 mg/m<sup>3</sup> TWA



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### Personal Protective Equipment

**Eyes:**

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:**

Wear appropriate gloves to prevent skin exposure.

**Clothing:**

Wear appropriate protective clothing to prevent skin exposure.

**Respirators:**

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.

### Section 9 - Physical and Chemical Properties

**Physical State:** Crystals

**Color:** Colorless to light tan.

**Odor:** Odorless

**pH:** 3.75 (70 g/L in water)

**Vapor Pressure:** 0.00067 mm Hg @ 25°C

**Vapor Density:** 3.8 (air = 1)

**Evaporation Rate:** Negligible

**Viscosity:** No information found.

**Boiling Point:** 285°C

**Freezing/Melting Point:** 172°C

**Decomposition Temperature:** No information found.

**Solubility in water:** 70 g/L @ 20°C

**Specific Gravity/Density:** 1.320

**Molecular Formula:** C<sub>6</sub>H<sub>6</sub>O<sub>2</sub>

**Molecular Weight:** 110.11

### Section 10 - Stability and Reactivity

**Chemical Stability:**

Stable under normal temperatures and pressures. Substance undergoes color change upon exposure to light and air.

**Conditions to Avoid:**

Light, dust generation, moisture.

**Incompatibilities with Other Materials:**

Strong oxidizing agents, strong bases, alkalis.

**Hazardous Decomposition Products:**

Carbon monoxide, carbon dioxide, phenol.

**Hazardous Polymerization:**

Will not occur.

### Section 11 - Toxicological Information

**RTECS:**

CAS# 123-31-9: MX3500000.



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### LD50/LC50:

CAS# 123-31-9:

Oral, mouse: LD50 = 245 mg/kg

Oral, rabbit: LD50 = 200 mg/kg

Oral, rat: LD50 = 302 mg/kg.

### Carcinogenicity:

CAS# 123-31-9:

ACGIH: A3 - Animal Carcinogen

California: Not listed.

NIOSH: Not listed.

NTP: Not listed.

OSHA: Not listed.

IARC: Group 3

### Epidemiology:

Tumorigenic data (RTECS). Animal inadequate evidence (IARC group-3). Some evidence in animals (NTP TR 366).

### Teratogenicity:

No information available.

### Reproductive:

Fertility: Male index, subcutaneous(sct)-rat TDLo=5100 mg/kg; Post-implantation mortality, oral-rat TDLo=2500 mg/kg. Maternal Effects: Menstrual cycle abnormalities, sct-rat TDLo=550mg/kg; Ovaries/fallopian tubes, sct-rat TDLo=5mg/kg. Paternal Effects: Prostate/seminal vesicle/Cowpers gland/urethra and Testes/sperm duct/epididymis, sct-rat TDLo=5100mg/kg.

### Mutagenicity:

DNA Inhibition: human HeLa cell 100umol/L mouse lymphocyte 10umol/L Unscheduled DNA

Synthesis: rat oral 8g/kg. Sister Chromatid Exchange: human lymphocyte 5umol/L.

### Neurotoxicity:

No information available.

## Section 12 - Ecological Information

Substance has a high biological oxygen demand, and a high potential to affect aquatic organisms. Substance readily biodegrades, and is not likely to bioconcentrate.

## Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

## Section 14 - Transport Information

### US DOT

**Shipping Name:** Toxic solid, organic, nos.

**Hazard Class:** 6.1

**UN Number:** UN2811

**Packing Group:** PGIII



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### Section 15 - Regulatory Information

#### US Federal

**TSCA:**

CAS# 123-31-9 is listed on the TSCA Inventory.

**SARA Reportable Quantities (RQ):**

CAS# 123-31-9: final RQ = 100 pounds (45.4 kg)

**CERCLA/SARA Section 313:**

This material contains Hydroquinone (CAS# 123-31-9, 100%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**OSHA - Highly Hazardous:**

None of the components are on this list.

#### US State

**State Right to Know:**

Hydroquinone can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

**California Regulations:**

None.

#### European/International Regulations

**Canadian DSL/NDSL:**

CAS# 123-31-9 is listed on Canada's DSL List.

**Canada Ingredient Disclosure List:**

CAS# 123-31-9 is listed on Canada's Ingredient Disclosure List.

### Section 16 - Other Information

MSDS Creation Date: October 27, 2004

Revision Date: August 6, 2008

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