

## HYDROQUINONE

## Material Safety Data Sheet

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 Mallinckrodt Chemical, Inc.  
 P.O. Box 800  
 Paris, Kentucky 40362

Emergency Telephone Number  
 314-539-1600

Effective Date: 11-09-92 Supersedes 04-06-89

## PRODUCT IDENTIFICATION:

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 Synonyms: 1,4-Dihydroxybenzene; p-dihydroxybenzene; 1,4-benzenediol

Formula CAS No.: 123-31-9

Molecular Weight: 110.11

Hazardous Ingredients: Hydroquinone

Chemical Formula: C<sub>6</sub>H<sub>4</sub>(OH)<sub>2</sub>

## PRECAUTIONARY MEASURES

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 DANGER! MAY BE FATAL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES SEVERE IRRITATION. EXPOSURE MAY PRODUCE LIVER, KIDNEY, AND NEUROLOGICAL DISORDERS. COMBUSTIBLE.

Avoid contact with eyes, skin and clothing.  
 Avoid breathing dust.  
 Keep container closed.  
 Use with adequate ventilation.  
 Wash thoroughly after handling.

## EMERGENCY FIRST AID

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 If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In all cases call a physician.  
 SEE SECTION 5.

## Physical Data

## SECTION 1

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 Appearance: White crystals.

Odor: Odorless.

Solubility: 7g/100g water @ 25 C (77 F).

Boiling Point: 285 C (545 F) @ 730mmHg. Vapor Density (Air=1):3.81

Melting Point: 173-174 C (343-345 F). Vapor Pressure (mm Hg):4 @ 150 C.

Specific Gravity :1.36

Evaporation Rate:No information found.

NFPA Ratings: Health: 2 Flammability: 1 Reactivity: 0

## Fire and Explosion

## SECTION 2

## Information

## Fire:

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 Flash point: 165 C (329 F) (closed cup).  
 Autoignition temperature: 516 C (960 F) May pose a fire hazard when exposed to heat, flame, or oxidizing agents.

## Explosion:

May be a slight explosion hazard when exposed to heat.

Fire Extinguishing Media: Water, carbon dioxide, or dry chemical.

Special Information: Wear full protective clothing and breathing equipment for high-intensity fire or potential explosion conditions.

## Reactivity Data

## SECTION 3

## Stability:

Stable under ordinary conditions of use and storage. Solution becomes brown in air due to oxidation.

## Hazardous Decomposition

## Products:

No hazardous decomposition products.

## Hazardous Polymerization:

This substance does not polymerize.

## Incompatibilities:

Sodium hydroxide and oxidizing agents.

## Leak/Spill Disposal Information

## SECTION 4

Ventilate the area of the leak or spill. Remove all sources of ignition. Evacuate area of the leak or spill. Only specially trained or qualified personnel should handle the emergency. Clean-up personnel require protective clothing and respiratory protection from dust. Collect by scooping, mopping or wet vacuuming as appropriate. Package in paper or other flammable material. Burn in an approved incinerator. Or the solid may be dissolved in a flammable solvent and sprayed into the fire chamber. Reportable Quantity (RQ) (CWA/CERCLA) : 1 lb. Ensure compliance with local, state and federal regulations.

## Health Hazard Information

## SECTION 5

## A. Exposure/Health Effects

## Inhalation:

Inhalation of dust may cause irritation and broncopneumonia.

## Ingestion:

Toxic. May cause hyperactivity, stupor, fall in blood pressure, hyperpnea, abdominal pain, diarrhea, intense thirst, sweating, tinnitus, nausea, dizziness, a sensation of suffocation, an increased rate of respiration, vomiting, pallor, muscular twitching, headache, cyanosis, delirium, and collapse. Estimated lethal dose lies between 5 to 12 grams. May cause jaundice, oliguria, or anuria. Causes irritation of the intestinal tract.

## Skin Contact:

May cause severe irritation, dermatitis, and lesions. May be absorbed through the skin. Symptoms may parallel those from ingestion exposure.

## Eye Contact:

May cause irritation and lesions. May also cause keratitis and discoloration of the conjunctavia.

## Chronic Exposure:

Repeated or prolonged exposure through ingestion or skin absorption may cause symptoms similar to acute poisoning.

## Aggravation of

## Pre-existing Conditions:

Persons with pre-existing skin or eye disorders or gastrointestinal disturbances may be more susceptible to the effects of this substance.

## B. FIRST AID

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion: If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call physician immediately.

Skin Exposure: Remove any contaminated clothing. Wipe off excess from skin. Wash skin with plenty of water for at least 15 minutes. Get medical attention promptly.

Eye Exposure: Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY (RTECS, 1992)

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Oral rat LD50: 320 mg/kg; investigated as a tumorigen, mutagen, reproductive effector.

Occupational Control Measures SECTION 6  
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Airborne Exposure Limits: -OSHA Permissible Exposure Limit (PEL): 2 mg/m3 (TWA) -ACGIH Threshold Limit Value (TLV): 2 mg/m3 (TWA)

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators (NIOSH Approved) If the TLV is exceeded, a dust/mist respirator with chemical goggles may be worn, in general, up to ten times the TLV. Consult respirator supplier for limitations. Alternatively, a supplied air full facepiece respirator or airlined hood may be worn.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

Storage and Special Information SECTION 7  
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Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage. Isolate from oxidizing materials. Protect from direct sunlight.

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RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

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Addendum to Material Safety Data Sheet

REGULATORY STATUS

This Addendum Must Not Be  
 Detached from the MSDS  
 Identifies SARA 313 substance(s)

Any copying or redistribution of the MSDS  
 must include a copy of this addendum

Hazard Categories for SARA  
 Section 311/312 Reporting

Acute ----- X	Chronic ----- X	Fire ----- X	Pressure -----	Reactive -----
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Product or Components of Product: -----	SARA EHS Sec. 302		SARA Sec. 313 Chemicals		CERCLA	RCRA
	RQ	TPQ	Name List	Chemical Category	Sec.103 RQ lbs	Sec. 261.33
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HYDROQUINONE (123-31-9)	1	500*	Yes	No	No	No

SARA Section 302 EHS RQ:  
 Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.

SARA Section 302 EHS TPQ:  
 Threshold Planning Quantity of Extremely Hazardous substance. An asterisk (\*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LBS.

SARA Section 313 Chemicals:  
 Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.

CERCLA Sec. 103:  
 Comprehensive Environmental Response, Compensation and Liability Act (Superfund) Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4

RCRA:  
 Resource Conservation and Recovery Act. Commercial chemical product wastes designated as acute hazards or toxic under 40 CFR 261.33

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