

# Hydroquinone

## SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	Hydroquinone
<b>Other Means of Identification</b>	1,4-Benzenediol, Dihydroxybenzene
<b>Product Code(s)</b>	HY6210, HY6230
<b>Product Family</b>	Organic solid
<b>Recommended Use</b>	Laboratory and industrial use.
<b>Restrictions on Use</b>	None known.
<b>Supplier Identifier</b>	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
<b>Emergency Phone No.</b>	CANUTEC CANADA, 613-996-6666, 24 Hours
<b>SDS No.</b>	358

## SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

### Classification

Combustible dust - Category 1; Acute toxicity (Oral) - Category 4; Acute toxicity (Dermal) - Category 5; Serious eye damage - Category 1; Skin sensitization - Category 1; Specific target organ toxicity (repeated exposure) - Category 2

### Label Elements



Signal Word:  
Danger

### Hazard Statement(s):

Harmful if swallowed.  
Causes serious eye irritation.  
May cause an allergic skin reaction.  
May form combustible dust concentrations in air.

### Precautionary Statement(s):

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Do not get in eyes, on skin, or on clothing.  
Wash hands and skin thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.

Response:

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IF SWALLOWED: Immediately call a POISON CENTRE or doctor.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of water.

If skin irritation occurs: Get medical advice/attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Storage:

Store locked up.

#### Other Hazards

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance:

Chemical Name	CAS No.	%	Other Identifiers
Hydroquinone	123-31-9	> 99	1,4-Benzenediol, Dihydroxybenzene

### SECTION 4. FIRST-AID MEASURES

#### First-aid Measures

##### Inhalation

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. Immediately call a Poison Centre or doctor.

##### Skin Contact

Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation or a rash occurs, get medical advice or attention.

##### Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

##### Ingestion

Do not induce vomiting. Rinse mouth with water. If vomiting occurs, have person lie on side in the recovery position. Rinse mouth with water again. Immediately call a Poison Centre or doctor.

##### First-aid Comments

All first aid procedures should be periodically reviewed by a doctor familiar with the material and its condition of use in the workplace. Get medical advice or attention if you feel unwell or are concerned.

#### Most Important Symptoms and Effects, Acute and Delayed

If in eyes: may cause moderate to severe irritation.

#### Immediate Medical Attention and Special Treatment

##### Special Instructions

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Extinguishing Media

##### Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog. Special "alcohol resistant fire-fighting foams".

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### Unsuitable Extinguishing Media

Do not use a solid (straight) water stream as it may scatter and spread fire.

### Specific Hazards Arising from the Product

Can ignite if strongly heated. Heating increases the release of toxic vapour.  
In a fire, the following hazardous materials may be generated: irritating chemicals; toxic chemicals.

### Special Protective Equipment and Precautions for Fire-fighters

Approach fire from upwind to avoid hazardous vapours or gases. Fight fire from a safe distance or a protected location. Dust explosion hazard. Use water spray or fog to prevent dust formation and minimize risk of explosion. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles. Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Emergency responders: use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources if safe to do so. Remove or isolate incompatible materials as well as other hazardous materials.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Avoid generating dust. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal. Flush spill area.

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: contact emergency services and manufacturer/supplier for advice.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Obtain special instructions before use. Only use where there is adequate ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent accidental contact with incompatible chemicals. Avoid generating dusts. Keep containers tightly closed when not in use or empty.

### Conditions for Safe Storage

Store in an area that is: cool, dry, ventilated, out of direct sunlight and away from heat and ignition sources, separate from incompatible materials (see Section 10: Stability and Reactivity). Keep amount in storage to a minimum. Store in the original, labelled, shipping container. Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet. Comply with all applicable health and safety regulations, fire and building codes.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Hydroquinone	1 mg/m3 A3		Not established			

ACGIH® = American Conference of Governmental Industrial Hygienists. A3 = Animal carcinogen.

### Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Exhaust directly to the outside, taking any necessary precautions for environmental protection.

## Individual Protection Measures

### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: butyl rubber, neoprene rubber, nitrile rubber, Silver Shield/4H® (PE/EVAL/PE).

The following materials should NOT be used: natural rubber, polyvinyl alcohol, polyvinyl chloride.

### Respiratory Protection

Wear a NIOSH approved air-purifying respirator with N100, R100, or P100 filter(s), wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

<b>Appearance</b>	White crystals.
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	0.15 ppm (100% recognition)
<b>pH</b>	Not available
<b>Melting Point/Freezing Point</b>	173 - 174 °C (343 - 345 °F) (melting); Not available (freezing)
<b>Initial Boiling Point/Range</b>	285 - 287 °C (545 - 549 °F)
<b>Flash Point</b>	165 °C (329 °F) (closed cup)
<b>Evaporation Rate</b>	Not available
<b>Flammability (solid, gas)</b>	Not available
<b>Upper/Lower Flammability or Explosive Limit</b>	Not available (upper); Not available (lower)
<b>Vapour Pressure</b>	0.133 kPa (0.998 mm Hg)
<b>Vapour Density (air = 1)</b>	Not applicable
<b>Relative Density (water = 1)</b>	1.33 at 15 °C
<b>Solubility</b>	Moderately soluble (1-10 g/100 mL) in water; Soluble in all proportions in alcohols (e.g. ethanol).
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	0.50 - 0.59
<b>Auto-ignition Temperature</b>	515 - 516 °C (959 - 961 °F)
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available (kinematic); Not available (dynamic)
<b>Other Information</b>	
<b>Physical State</b>	Solid
<b>Other Physical Property 1</b>	Potential combustible dust hazard.

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions of use.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None known.

### Conditions to Avoid

Generation of dust. Open flames, sparks, static discharge, heat and other ignition sources. Water, moisture or humidity. Temperatures above 165 °C

#### **Incompatible Materials**

Strong bases (e.g. sodium hydroxide), strong oxidizing agents (e.g. perchloric acid).

#### **Hazardous Decomposition Products**

1,4-benzoquinone.

## **SECTION 11. TOXICOLOGICAL INFORMATION**

#### **Likely Routes of Exposure**

Inhalation; skin contact; eye contact; ingestion.

#### **Acute Toxicity**

<b>Chemical Name</b>	<b>LC50</b>	<b>LD50 (oral)</b>	<b>LD50 (dermal)</b>
Hydroquinone	Not available	320 mg/kg (rat)	> 3840 mg/kg (mouse)

#### **Skin Corrosion/Irritation**

Human experience and animal tests show mild irritation.

#### **Serious Eye Damage/Irritation**

There is limited evidence of serious eye irritation.

#### **STOT (Specific Target Organ Toxicity) - Single Exposure**

##### **Inhalation**

May cause nose and throat irritation.

##### **Ingestion**

Harmful

Causes a laxative effect if large amounts are swallowed. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

#### **Aspiration Hazard**

No information was located.

#### **STOT (Specific Target Organ Toxicity) - Repeated Exposure**

May cause dermatitis. Symptoms may include dry, red, cracked skin (dermatitis).

#### **Respiratory and/or Skin Sensitization**

Human experience shows allergic skin reactions (skin sensitization) in a substantial proportion of people exposed at work.

#### **Carcinogenicity**

<b>Chemical Name</b>	<b>IARC</b>	<b>ACGIH®</b>	<b>NTP</b>	<b>OSHA</b>
Hydroquinone	Group 3	A3	Not Listed	

#### **Key to Abbreviations**

IARC = International Agency for Research on Cancer. Group 3 = Not classifiable as to its carcinogenicity to humans.

ACGIH® = American Conference of Governmental Industrial Hygienists. A3 = Animal carcinogen.

## Reproductive Toxicity

### Development of Offspring

No information was located.

### Sexual Function and Fertility

No information was located.

### Effects on or via Lactation

No information was located.

## Germ Cell Mutagenicity

Conclusions cannot be drawn from the limited studies available.

## Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations.

## SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

**Special Precautions** Not applicable

### Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15. REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

#### Canada

##### Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

#### USA

##### Toxic Substances Control Act (TSCA) Section 8(b)

Listed on the TSCA Inventory.

## SECTION 16. OTHER INFORMATION

**NFPA Rating**                      **Health - 2**    **Flammability - 1**                      **Instability - 1**

**SDS Prepared By**                      Alphachem Limited

**Phone No.**                                      (905)-821-2995

**Date of Preparation**                      February 08, 2016

**Date of Last Revision**                      January 11, 2017

**References**                                      CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

**Disclaimer**                                      This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.

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