Materials Safety Data Sheet

HYDROQUINONE

Section 1 - Chemical Product and Company Identification

MSDS Name: Hydroquinone

Synonym: 1,4 Benzenediol, p-Hydroxybenzene, Hydroquinol, Quino

CAS No.: 123-31-9

Details of the supplier:

Manufacturer/Supplier: Wuhan Biet Co., Ltd
Room 1004 Wuhan Furniture Plaza, Qiaokou Distric, Wuhan, Hubei, China 430000

For information, call: +86 27 8369 8488

For technical support, call: +86 27 8369 8488

For emergencies in China, call: 112

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS#
123-31-9	HYDROQUINONE	99.0% min	204-617-8

Hazard Symbols: XN N

Risk Phrases: 22 40 41 43 50 68

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful if swallowed. Limited evidence of a carcinogenic effect.

Risk of serious damage to eyes. May cause sensitization by skin contact. Very toxic to aquatic organisms. Possible risk of irreversible effects. Light sensitive. Air sensitive.

Potential Health Effects

Eye:

May cause eye irritation. Repeated exposure may cause corneal abnormalities including structural changes and brownish discoloration which can lead to decreased visual acuity and blindness.

Skin:

Causes severe skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May cause dermatitis. Repeated exposure may cause hyperpigmentation of fair skin and depigmentation of dark skin.

Ingestion:

May cause severe irritation of the digestive tract. May be harmful if swallowed. 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.

Inhalation:

May cause respiratory tract irritation. Causes narcotic effects including headache, dizziness, weakness, unconsciousness, and possible death. Vapors may cause dizziness or suffocation.

Inhalation of dust may cause respiratory tract irritation. Exposure to high concentration of vapor may caues irritation, photophobia, tearing, and corneal ulceration.

Chronic:

Prolonged or repeated skin contact may cause sensitization dermatitis and possible destruction and/or ulceration.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed.

Skin:

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

Ingestion:

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:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

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. Dusts at sufficient concentrations can form explosive mixtures with air.

Extinguishing Media:

Use foam, dry chemical, or carbon dioxide.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:
Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions.

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 place. Do not store in direct sunlight.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:
Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
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 protective 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. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Crystals
Color: colorless, light tan, or light gray
Odor: None reported.
pH: Not available.
Vapor Pressure: 1 mm Hg @ 132C
Viscosity: Not available.
Boiling Point: 285 deg C @ 760.00mm Hg

Freezing/Melting Point: 172.00 - 175.00 deg C
Autoignition Temperature: 516 deg C (960.80 deg F)
Flash Point: 165 deg C (329.00 deg F)
Explosion Limits, lower: Not available.
Explosion Limits, upper: Not available.
Decomposition Temperature:
Solubility in water: 70 G/L WATER (20°C)
Specific Gravity/Density: 1.3280g/cm^3
Molecular Formula: $C_6H_6O_2$
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 oxidizers, alkalies. Undergoes violent reaction with sodium hydroxide.
Hazardous Decomposition Products:
Carbon monoxide, carbon dioxide, quinone.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 123-31-9: MX3500000 LD50/LC50:
CAS# 123-31-9: Oral, mouse: LD50 = 245 mg/kg; Oral, mouse: LD50 = 350 mg/kg; Oral, rabbit: LD50 = 200 mg/kg; Oral, rat: LD50 = 302 mg/kg; Oral, rat: LD50 = 320 mg/kg.
Carcinogenicity:
Hydroquinone - ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to Other:
See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity:
Fish: Rainbow trout: LC50 = 0.097 mg/L; 96 Hr.; UnspecifiedFish: Fathead Minnow: LC50 = 0.1-0.18 mg/L; 96 Hr.; UnspecifiedBacteria: Phytobacterium phosphoreum: EC50 =0.77-3.97 mg/L; 5,15,30 minutes; Microtox test

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

IATA
Shipping Name: HYDROQUINONE
Hazard Class: 9
UN Number: 3077
Packing Group: III

Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: XN N
Risk Phrases:
R 22 Harmful if swallowed.
R 40 Limited evidence of a carcinogenic effect.
R 41 Risk of serious damage to eyes.
R 43 May cause sensitization by skin contact.
R 50 Very toxic to aquatic organisms.
R 68 Possible risk of irreversible effects.
Safety Phrases:
S 26 In case of contact with eyes, rinse immediately
with plenty of water and seek medical advice.
S 36/37/39 Wear suitable protective clothing, gloves
and eye/face protection.
S 61 Avoid release to the environment. Refer to
special instructions/safety data sheets.
WGK (Water Danger/Protection)
CAS# 123-31-9: 2
United Kingdom Occupational Exposure Limits
CAS# 123-31-9: OES-United Kingdom, TWA 2 mg/m3 TWA
CAS# 123-31-9: OES-United Kingdom, STEL 4 mg/m3 STEL
United Kingdom Maximum Exposure Limits
CAS# 123-31-9: MEL-United Kingdom, TWA 0.5 mg/m3 TWA

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

Exposure Limits

CAS# 123-31-9: OEL-AUSTRALIA:TWA 2 mg/m3

OEL-BELGIUM:TWA 2 mg/m3

OEL-DENMARK:STEL 2 mg/m3

OEL-FINLAND:TWA 2 mg/m3;STEL 4 mg/m3;Skin

OEL-FRANCE:TWA 2 mg/m3

OEL-GERMANY:TWA 2 mg/m3

OEL-THE NETHERLANDS:TWA 2 mg/m3

OEL-THE PHILIPPINES:TWA 2 mg/m3

OEL-POLAND:TWA 2 mg/m3

OEL-SWEDEN:TWA 0.5 mg/m3;STEL 1.5 mg/m3

OEL-SWITZERLAND:TWA 2 mg/m3;STEL 4 mg/m3

OEL-TURKEY:TWA 2 mg/m3

OEL-UNITED KINGDOM:TWA 2 mg/m3;STEL 4 mg/m3

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

US FEDERAL

TSCA

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