



Sensorex[™]

MATERIAL SAFETY DATA SHEET (MSDS)

Section 1 - Chemical Product and Company Identification

Catalog Number(s)

B115, B125

Product Name

Quinhydrone, 20 grams

Supplier's Name

Sensorex Corporation

Emergency Telephone Number (24 hr)

Address (Number, Street, City, State and Zip Code)

11751 Markon Drive

Telephone number for Information

714-895-4344

Garden Grove, CA. 92841 USA

Date prepared

07-25-07

Section 2 - Composition/Ingredient Information

Component	CAS Registry #	Percent Concentration	Exposure Limits	
			ACGIH TLV	OSHA PEL
Quinhydrone (2,5-Cyclohexadiene---1,4-dione complex with 1,4 benzenediol (1:1); p-Benzoquinone compd. with hydroquinone; green hydroquinone	106-34-3	100%	XXXX-XX-X	<X

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

DANGER! MAY BE FATAL IF SWALLOWED. AFFECTS CENTRAL NERVOUS SYSTEM. CAUSES SEVERE SKIN AND EYE IRRITATION. HARMFUL IF INHALED. CAUSES IRRITATION TO RESPIRATORY TRACT.

POTENTIAL HEALTH EFFECTS:

TARGET ORGANS: skin, eyes, lungs, GI tract

EYE CONTACT: Causes severe irritation and possible corneal ulceration.

INHALATION: Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

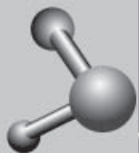
SKIN CONTACT: Causes severe irritation, redness and pain.

INGESTION: For Hydroquinone: Highly toxic. May cause hyperactivity, stupor, fall in blood pressure, hyperpnea, abdominal pain, diarrhea, intense thirst, tinnitus, nausea, dizziness, sensation of suffocation, increased respiration, vomiting, pallor, muscular twitching, headache, cyanosis, delirium, and collapse from respiratory failure. May cause green to brownish-green urine.

CHRONIC EFFECTS/CARCINOGENICITY: Repeated exposure to vapor or dust can cause brownish staining of the conjunctiva which may be followed by changes to the cornea leading to loss of visual acuity. Repeated exposure may also cause skin effects.

TERATOLOGY (BIRTH DEFECT INFORMATION): Not Available

REPRODUCTION INFORMATION: Not Available



Section 4 - First Aid Measures

EYE CONTACT: Check for and remove any contact lenses. Do not use eye ointment. See medical attention.

INHALATION: Remove to fresh air. If not breathing give artificial respiration. Seek immediate medical attention.

SKIN CONTACT: After contact with skin, wipe off excess material then gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Clean all folds, crevices, creases and groin. Cover the irritated skin with an emollient. Seek medical attention if irritation persists. Wash all contaminated clothing before reusing. Clean shoes before reuse.

INGESTION: *DO NOT INDUCE VOMITING.* Examine the lips and mouth to determine whether the tissues are damaged, a possible indication that the material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as collar, waistband, belt. Perform mouth to mouth resuscitation if victim is not breathing. Seek immediate medical attention.

Section 5 - Fire Fighting Measures

FLAMMABLE PROPERTIES: May be combustible at high temperature

FLASH POINT: 165C (329F) for Hydroquinone

METHOD USED:

FLAMMABLE LIMITS: Not available

LFL:

UFL:

EXTINGUISHING MEDIA: dry chemical, alcohol foam or carbon dioxide.

FIRE AND EXPLOSION HAZARDS: Fine dust dispersed in the air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard

FIRE FIGHTING EQUIPMENT: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in pressure demand or other positive pressure mode.

Section 6 - Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner so as not to disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

Section 7 - Handling and Storage

Precautions: Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical attention immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

Storage: Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents. Protect from direct sunlight.



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Section 8 - Exposure Controls/Personal Protection

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering control to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

PERSONAL PROTECTION: splash goggles, lab coat, dust respirator. Be sure to use approved/certified respirator.

PERSONAL PROTECTION IN CASE OF LARGE SPILL: Splash goggles. Full suit. Respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product.

AIRBORNE EXPOSURE LIMITS: Hydroquinone - OSHA PEL= 2mg/m³ (TWA), ACGIH Threshold Limit Value (TLV)= 2mg/m³(TWA)
pBenzoquinone - OSHA PEL= 0/1ppm (0.4mg/m³) (TWA))

Section 9 - Physical and Chemical Properties

APPEARANCE: Green metallic solid (powdered solid)

ODOR: Odorless

SOLUBILITY IN WATER: slight in cold, soluble in hot water

SPECIFIC GRAVITY: 1.4

MOLECULAR WEIGHT: 218.20

pH: N/A

BOILING POINT: sublimes

MELTING POINT: 171C (340 F)

VAPOR PRESSURE: N/A

Section 10 - Stability and Reactivity

CHEMICAL STABILITY: This product is stable

INCOMPATIBILITY: Reactive with oxidizing agents, sodium hydroxide and strong alkalis.

HAZARDOUS DECOMPOSITION PRODUCTS: quinone and oxides of carbon may be formed when this material is heated to decomposition.

POLYMERIZATION: Does not polymerize

CONDITIONS TO AVOID: Heat, Flame, ignition sources, incompatibles, light and air

Section 11 - Toxicological Information

ROUTES OF ENTRY: Dermal contact, eye, inhalation, ingestion.

ANIMAL TOXICITY: ORAL (LD50): Acute: 225mg/kg[Rat]

Section 12 - Ecological Information

ECOTOXICOLOGICAL INFORMATION: N/A

BOD5 and COD: N/A

PRODUCTS OF BIODEGRADATION: Possibly hazardous short term degradation are not likely. However, long term degradation products may arise.

SPECIAL REMARKS: May decompose in presence of light. May decompose on exposure to moist air and water.



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Section 13 - Disposal Considerations

Material does not have an EPA waste number and is not listed as waste. Always contact a permitted waste disposer to assure compliance with, federal, state and local regulations.

Section 14 - Transportation Information

D.O.T. SHIPPING NAME: Not a DOT controlled material (USA) D.O.T. HAZARD CLASS:
U.N. / N.A. NUMBER: N/A
PACKING GROUP: N/A
D.O.T. LABEL: N/A

Section 15 - Regulatory Information - (NOT ALL INCLUSIVE)

OSHA STATUS: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

TSCA STATUS: TSCA 8(b) inventory: Quinhydrone

CERCLA REPORTABLE QUANTITY: N/A

SARA TITLE III:

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: N/A

SECTION 311/312 HAZARDOUS CATEGORIES: Acute: YES Chronic: YES Fire: NO Pressure: NO Reactivity: NO

SECTION 313 TOXIC CHEMICALS: N/A

RCRA STATUS: N/A

WHMIS (Canada):

CLASS D- 1B: Material causing immediate toxic effects (TOXIC)

CLASS D- 2A: Material cause other toxic effects (VERY TOXIC)

DSCL (EEC):

R22- Harmful if swallowed

R38- Irritating to skin

R41- Risk of serious damage to eyes

Section 16 - Other Information

NFPA Ratings:

Health: 3

Flammability: 2

Reactivity: 1

Special Notice Key: None

HMIS Ratings:

Health: 3

Flammability: 2

Reactivity: 1

Special Notice Key: None

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