



SENSOREX[™]

MATERIAL SAFETY DATA SHEET (MSDS)

Section 1 - Chemical Product and Company Identification

Catalog Number(s)

S21

Product Name

Calomel Free pH electrode refill solution

Manufacturer'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
03-03-2008

Section 2 - Composition/Ingredient Information

Component	CAS Registry #	Concentration	Exposure Limits	
			ACGIH TLV	OSHA PEL
Potassium Nitrate	7757-79-1	16%	N/A	N/A
Deionized water	7732-18-5	Balance	N/A	N/A

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATETIAL MAY CAUSE FIRE. HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

POTENTIAL HEALTH EFFECTS:

TARGET ORGANS: eyes, skin, mucous membranes and digestive tract

EYE CONTACT: Causes irritation, redness and pain.

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

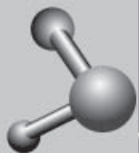
SKIN CONTACT: May cause irritation. Symptoms include redness, itching, and pain.

INGESTION: Causes irritation to gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea. May cause gastroenteritis and abdominal pain. Purging and diuresis can be expected. Rare cases of nitrates being converted to more toxic nitrites have been reported, mostly with infants.

CHRONIC EFFECTS/CARCINOGENICITY: Under some circumstances methemoglobinemia occurs in some individuals when nitrate is converate to nitrite stomach bacterial flora. Nausea, vomiting, dizziness, rapid heart beat, irregular breathing , covulsions, coma and death can occur if this conversion takes place. Chronic exposure to nitrites may cause anemia and adverse kidney effects.

TERATOLOGY (BIRTH DEFECT INFORMATION): No information

REPRODUCTION INFORMATION: No information



Section 4 - First Aid Measures

EYE CONTACT: Irrigate immediately with large quantity of water for at least 15 minutes. Get medical attention immediately.

INHALATION: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

SKIN CONTACT: Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops. Remove contaminated clothing and shoes. Wash clothing and shoes before reuse.

INGESTION: Induce vomiting only as directed by medical personnel. Get medical attention.

Section 5 - Fire Fighting Measures

FLAMMABLE PROPERTIES:

FLASH POINT: N/A

METHOD USED: N/A

FLAMMABLE LIMITS:

LFL: N/A

UFL: N/A

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, Halon, water spray or fog. If water is used, apply from as far a distance as possible. Do not allow water runoff to enter sewers or waterways.

FIRE AND EXPLOSION HAZARDS: Not considered to be a fire hazard. Some nitrates may explode when shocked, exposed to heat or flame or by spontaneous chemical reaction. Sensitive to mechanical impact.

FIRE FIGHTING INSTRUCTIONS: Non-flammable

FIRE FIGHTING EQUIPMENT: N/A

Section 6 - Accidental Release Measures

Ventilate area of leak or spill. Remove all ignition sources. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering area. Contain and recover liquid when possible. Use only non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (vermiculite, dry sand) and place in a chemical waste container. Do not use combustible material such as saw dust.

Section 7 - Handling and Storage

Keep in tightly closed container, store in a cool dry, ventilated area. Protect against physical damage and moisture. Isolate from any source of ignition or heat. Avoid storage on wood floors. Separate incompatibles, combustibles, organic and any other readily oxidizable material. Containers of this material may be hazardous when empty since they retain product residues.

Section 8 - Exposure Controls/Personal Protection

ENGINEERING CONTROLS: A system of local and/or general exhaust is recommended to keep exposure as low as possible.

RESPIRATORY PROTECTION: For conditions of use where exposure to dust or mist is apparent, half-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.

SKIN PROTECTION: Wear impervious clothing, boots, gloves, lab coat apron or coveralls to prevent skin contact.

EYE PROTECTION: Use chemical safety goggles and or a full face shield where splash is possible. Maintain eyewash fountain.



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Section 9 - Physical and Chemical Properties

APPEARANCE: Clear liquid
ODOR: Odorless
SOLUBILITY IN WATER: 100%
SPECIFIC GRAVITY: approx 1.28
EVAPORATION RATE: N/A

BOILING POINT(°C): 110
FREEZE POINT(°C): 0 TO -20
VAPOR PRESSURE @ 20C: N/A
VAPOR DENSITY: N/A

Section 10 - Stability and Reactivity

CHEMICAL STABILITY: Stable under normal conditions of use and storage.

INCOMPATIBILITY: Heavy metals, phosphites, organics, carbonaceous materials, strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen and toxic metal fumes may form when heated to decomp.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Heat, flames, ignitiona sources and incompatibles.

Section 11 - Toxicological Information

TOXICITY DATE: N/A

TOXICOLOGICAL FINDINGS: Lab animal testing indicates material does not produce any mutagenic effects.

Section 12 - Ecological Information

ECOTOXICOLOGICAL INFORMATION: No information found.

CHEMICAL FATE INFORMATION: No information found.

Section 13 - Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14 - Transportation Information

D.O.T. SHIPPING NAME: Not Regulated
D.O.T. HAZARD CLASS: Not Regulated
U.N. / N.A. NUMBER: Not Regulated
PACKING GROUP: Not Regulated



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Section 15 - Regulatory Information - (NOT ALL INCLUSIVE)

OSHA STATUS: The items listed on this MSDS do not contain any hazardous material or the potentially hazardous material is present in such low concentration that the items do not present any immediate threat to health or safety. These items do not meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of hazardous material.

TSCA STATUS: All components of this solution are listed on the TSCA Inventory are mixtures (hydrates) of items listed on the TSCA inventory.

CERCLA REPORTABLE QUANTITY: None

SARA TITLE III:

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: No

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

SECTION 313 TOXIC CHEMICALS: No

RCRA STATUS: No

CALIFORNIA PROPOSITION 65: Not listed

Section 16 - Other Information

NFPA Ratings:	Health: 1	Flammability: 0	Reactivity: 0	Special Notice Key: Oxidizer
HMIS Ratings:	Health: 1	Flammability: 0	Reactivity: 0	Special Notice Key: Oxidizer

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