Section 1 - Chemical Product and Company Identification

GHS Product Indentifier
CLDA - 5015

Product Name
Chlorine Dioxide Sensor Electrolyte

Manufacturer Name
Sensorex Corporation

Recommended Use/ Restrictions on Use
Use as generic compound for chlorine dioxide amperometric sensor. Not for household use.

Address (Number, Street, City, State and Zip Code)
11751 Markon Drive

Garden Grove, CA. 92841 USA

Emergency Telephone Number (24 hr) (800) 222-1222
American Association of Poison Control Centers

Telephone Number for Information
714-895-4344

Section 2 - Hazards Identification

GHS Classification: Skin Corrosive 1B H314. Eye Damage 1 H318 Corrosive to metals 1 H290.

GHS Label Elements

Pictogram:

Signal Word:

Danger

Hazard Statements:

H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.

Precautionary Statements:
P234 - Keep only in original container.
P260 - Do not breathe mist, vapors, spray.
P264 - Wash exposed skin thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor/physician.
P321 - Specific treatment (see supplemental first aid instructions on this Safety Data Sheet.)
P363 - Wash contaminated clothing before reuse.
P390 - Absorb spillage to prevent material damage.
P405 - Store locked up.
P406 - Store in corrosive resistant stainless steel container with a resistant inner liner.
P501 - Dispose of contents/container to comply with local, state and federal regulations.

Other hazards not classified or covered by GHS: None

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Section 3 - Composition/Ingredient information

Chemical Identity	CAS Registry #	EC#	Percent Weight (%)
o-Phosphoric Acid, 85% w/w	7664-38-2	231-633-2	13.0
Potassium Phosphate Monobasic	7778-77-0	231-913-4	6.8
Potassium Chloride	7447-40-7	231-211-8	0.75
Deionized Water	7732-18-5	231-791-2	Balance

Section 4 - First Aid Measures

Description of Necessary First Aid Measures:

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

IF INHALED: Move person into fresh air. If not breathing, perform rescue breathing and contact emergency medical personel. If breathing is difficult, give oxygen.

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

INGESTION: DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

Most important symptoms/effects, acute and delayed:

INHALATION: Coughing. Dry/sore throat. Irritation of respiratory tract. Irritation of nasal mucous membranes. May appear later: Respiratory difficulties. Risk of lung oedema.

SKIN CONTACT: Caustic burns/corrosion of skin.

EYE CONTACT: Corrosion of the eye tissue.

INGESTION: Burns to gastric/intestinal mucosa. Nausea. Abdominal pain. Blood in vomit.

AFTER ABSORPTION OF LARGE QUANTITIES: Shock.

AFTER REPEATED EXPOSURE: Red skin/dry skin.

Indication of Immediate Medical Attention and Special Treatment Needed, if Necessary:

No data available

Section 5 - Fire-fighting Measures

Suitable extinguishing media:

SUITABLE: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

UNSUITABLE: No unsuitable extinguishing media known.

Specific hazards arising from the chemical (combustion products):

Oxides of phosphorous

Special protective actions for fire-fighters:

Wear self-contained breathing apparatus for fire-fighting if necessary.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency responders:

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Refer to Section 8 for Personal Protective Equipment.

Environmental precautions:

Do not let product enter drains.

Methods and materials for containment and cleaning up:

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable closed containers for disposal.

Section 7 - Handling and Storage

Precautions for safe handling:

Do not ingest. Do not get in eyes, skin or on clothing. Keep container closed. Use only with adequate ventilation. Do not breathe vapor or mist. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibles:

Keep in tightly closed container. Store in a cool, dry, well-ventilated area.

INCOMPATIBLE MATERIALS: Strong bases, metals.

Section 8 - Exposure Controls/Personal Protection

Control parameters:

Occupational exposure limits:
Phosphoric acid, 85% w/w (7664-38-2).

ACGIH TLV (US, 1/2006)	STEL: 3mg/m^3 15 minutes	Forms: all forms
	TWA: 1mg/m^3 8 hours	Forms: all forms
NIOSH REL (US 12/2001)	STEL: 3mg/m^3 15 minutes	Form: all forms
	TWA: 1mg/m^3 10 hours	Form: all forms
OSHA PEL (US, 8/1997)	TWA: 1mg/m^3 8 hours	Form: all forms
OSHA PEL 1989 (US 3/1989)	STEL: 3mg/m^3 15 minutes	Form: all forms
	TWA: 1mg/m^3 8 hours	Form: all forms

Appropriate Engineering Controls:

Handle in accordance with good industrial hygiene and safety practice. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Individual protection measures, personal protective equipment:

RESPIRATORY PROTECTION: For conditions of use where exposure to dust or mist is apparent, a properly fitted, air-purifiying or air-fed respirator must be worn.

SKIN PROTECTION: Wear impervious clothing, boots, chemical resistant 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

Section 9 - Physical and Chemical Properties

APPEARANCE: Clear, colorless liquid
ODOR: Odorless
ODOR THRESHOLD: N/A
FLASH POINT: N/A
VAPOR PRESSURE: No data available
RELATIVE DENSITY: 1.86 (o-phosphoric acid)
VISCOSITY: No data available

pH: 1.5
BOILING POINT (°C): Approximately 100
MELTING POINT (°C): Approximately 0
FLAMMABILITY: N/A
VAPOR DENSITY: No data available
SOLUBILITY IN WATER: Infinite
PARTITION COEFFICIENT (n-octonol/water): No data available
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available
EVAPORATION RATE compared with (n-butyl acetate = 1): 0.36 (water)
AUTO-IGNITION TEMPERATURE: N/A
DECOMPOSITION TEMPERATURE: No data available

Section 10 - Stability and Reactivity

REACTIVITY:
Explosive in the presence of heat and oxidizers.

CONDITIONS TO AVOID:
Heat, oxidizers and incompatible materials.

INCOMPATIBLE MATERIALS:
Metals and alkalis.

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

POSSIBILITY OF HAZARDOUS REACTIONS:
Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:
Phosphorous oxides, corrosive vapors.

Section 11 - Toxicological Information

Acute toxicity: Not classified.
Skin corrosion/irritation: Causes severe skin burns and eye damage.
Serious eye damage/irritation: Causes serious eye damage.
Respiratory or skin sensitization: Not classified.
Germ cell mutagenicity: Not classified.
Carcinogenicity: not classified.
Reproductive toxicity: Not classified.
STOT Single exposure: Not classified.
STOT Repeated exposure: Not classified.
Aspiration hazard: Not classified.

Symptoms related to the physical, chemical and toxicological characteristics:
INHALATION: Coughing. Dry/sore throat. Irritation of respiratory tract. Irritation of nasal mucous membranes. May appear later: Respiratory difficulties. Risk of lung oedema.
SKIN CONTACT: Caustic burns/corrosion of skin.
EYE CONTACT: Corrosion of the eye tissue.
INGESTION: Burns to gastric/intestinal mucosa. Nausea. Abdominal pain. Blood in vomit.
AFTER ABSORPTION OF LARGE QUANTITIES: Shock.
AFTER REPEATED EXPOSURE: Red skin/dry skin.

Delayed and immediate effects also chronic from short and long term exposure:
INHALATION: Respiratory difficulties. Risk of lung oedema.
SKIN CONTACT: Red skin/dry skin

Numerical measure of toxicity:
TOXICITY DATA United States: Phosphoric acid. LD50 1530 mg/kg oral rat. LD50 2740 mg/kg dermal rabbit. LC50 850 mg/m^3 (1hr) inhalation rat.

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Section 12 - Ecological Information

ECOTOXICITY:
Ecology - air: air pollutant.
Ecology - water: mild water pollutant (surface water). May cause eutrophication. Toxic to plankton.

PERSISTANCE AND DEGRADABILITY: No data available

BIOACCUMULATIVE POTENTIAL: Not bioaccumulative

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFCTS: No data available

Section 13 - Disposal Considerations

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal should be in accordance with all applicable regional, national and local laws and regulations.

Section 14 - Transportation Information

UN NUMBER: 1805
UN PROPER SHIPPING NAME: Phosphoric acid solution
TRANSPORT HAZARD CLASS(ES): 8 Corrosive material
PACKING GROUP: III - Minor danger
ENVIRONMENTAL HAZARD: No supplementary information available

Section 15 - Regulatory Information - (NOT ALL INCLUSIVE)

UNITED STATES

OSHA STATUS: o-Phosphoric acid, listed on this SDS is considered hazardous by OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of hazardous material.

HCS Classification: Toxic Material, Corrosive Material, Target Organ Effects

State Regulations: Pennsylvania RTK: Phosphoric Acid (environmental hazard, generic environmental hazard)
Massachusettes RTK: Phosphoric Acid
New Jersey: Water, Phosphoric Acid

CANADA

WHMIS (Canada): Class E corrosive material

CEPA DSL/CEPA NDSL: CEPA DSL: Water, phosphoric acid

EU REGULATIONS:
R34- Causes burns
S2- Keep out of reach of children
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical attention.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection

INTERNATIONAL REGULATIONS:

Austria (NICNAS):	Water, Phosphoric Acid
China:	Phosphoric Acid
Germany water class:	Phosphoric Acid
Japan (METI):	Water, Phosphoric Acid
Korea (TCCL):	Water, Phosphoric Acid
Philippines (RA6969):	Water, Phosphoric Acid

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Section 16 - Other Information

Date of preparation: March, 2015
This SDS replaces MSDS CLDA - 2015, Rev A (06-20-2008).

Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and Sensorex Corporation assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.

Full text of Hazard Statements referred to in Section 2:

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

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