SENSIDYNE
Industrial Health & Safety Instrumentation

SAFETY DATA SHEET

SECTION 1a: IDENTIFICATION	
SENSIDYNE, LP. 1000 112th Circle North, Suite 100 St. Petersburg, Florida, USA 33716 800/451-9444, 727/530-3602 FAX 727-539-0550 info@sensidyne.com	MSDS #2031 Carbon Monoxide Sensors Ventrex

SECTION 1b: CHEMICAL IDENTIFICATION

Material Name: Sealed electrochemical sensors for carbon monoxide (CO)
Chemical Name & Synonyms: None
Chemical Family: Mineral acid electrolyte, noble metal electrode and plastic housing
Formula: H2SO4 electrolytes, Pt electrodes

SECTION 2: HAZARDS IDENTIFICATION

This product is an "article" as defined in 29 CFR 1910.1200 (c) and under normal conditions of use does not a physical or health hazard to employees. If the sealed oxygen sensor is damaged or otherwise releases the liquid electrolyte inside, care should be taken not to allow this liquid to contact the skin or the eyes.

Danger
Skin Corrosion Category 1A
Acute Toxicity Inhalation mist Category 2

Causes burns by all exposure routes.
Toxic if inhaled
Do not breathe mist or spray
Wash hands thoroughly after handling
Use only outdoors or in a well-ventilated area
Wear protective gloves and eye protection
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
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
Immediately call a POISON CENTER/doctor
Wash contaminated clothing before reuse
Store locked up in a well-ventilated place. Keep container tightly closed
Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS			
	%	OSHA PEL	ACGIH TLV (2013)
Sulfuric Acid (CAS 7664-93-9) electrolyte	<50	1 mg/m^3	0.2 mg/m^3 (thoracic fraction)
Platinum Electrode		N/A	1 mg/m^3
ABS and PTFE housing		N/A	N/A

SECTION 4: FIRST AID MEASURES

Eyes: Flush with copious amounts of water for 15 minutes including under eyelids. Obtain medical advice.

Skin: Flush affected area with water for at least 15 minutes. Remove contaminated clothing. Obtain medical attention if irritation persists.

Ingestion: Dilute with milk or water. Do not induce vomiting for electrolyte ingestion. Get medical attention.

Inhalation: Remove to fresh air. Give oxygen if breathing is difficult. Get medical attention.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media: Suitable for surrounding fire.

Special Firefighting Procedures: Use SCBA's when fighting fires encompassing chemicals

Unusual Fire & Explosion Hazards: Fires encompassing ABS plastics may emit cyanides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spills Procedure: Spills are not anticipated with sealed sensors. Leaking sensors should be rinsed with lots of water and taken out of service. See first aid section for skin contact.

SECTION 7: HANDLING AND STORAGE

Handling & Storage: Store in a cool, dry place away from sources of light, heat and spark. Store away from combustibles and alkalines. Store away from organic solvent vapors, which may cause physical damage to the body of the sensor

Other Precautions: Wash hands after handling sensors especially before eating, drinking and applying cosmetics or contact lenses.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Sulfuric Acid

TWA: 1 mg/m^3 from OSHA (PEL) [United States] Inhalation.
TWA: 0.2 mg/m^3 from ACGIH (TLV) [United States, 2013] Inhalation. Thoracic fraction.

Platinum, metal

TWA: 1 mg/m^3 from ACGIH (TLV) [United States, 2013] Inhalation.

Protective Equipment: Use safety glasses when handling sensors. Leaking sensors should be handled with chemical resistant gloves and taken out of service.

Other Precautions:
Wash hands after handling sensors especially before eating, drinking and applying cosmetics or contact lenses.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES	
Appearance & Odor: The electrolyte is a dense clear liquid, strongly acidic. **Boiling Point, 1 Atm, ºF (ºC)**: >300 **Specific Gravity**: (Electrolyte) >1.8 (H2O = 1) **Vapor Pressure, mm Hg**: N/A **Evaporation Rate**: N/A	**Solubility in Water**: The electrolyte acids are soluble **Flash Point**: None **Auto Ignition Temperature**: None **Flammability Limits**: None

SECTION 10: STABILITY AND REACTIVITY

Stability: The sensor electrolyte is a stable mixture with a useful shelf and service life of one year or more. Hazardous polymerization is not known to occur.

Conditions to Avoid: Store away from combustibles and alkalines. Keep away from sources of heat, spark or flame. Store in a cool dark place.

Hazardous Decomposition Products: Not Known.

SECTION 11: TOXICOLOGICAL INFORMATION

LC50 Rat (Fischer-344) inhalation 0.375 mg/L/4 hr; Particle size (um) 1[OECD; SIDS Initial Assessment Reports for Sulfuric Acid (CAS No: 7664-93-9) for 11th SIAM (January 2001). Available from, as of October 5, 2009: http://www.inchem.org/documents/sids/sids/7664939.pdf
LC50 Rat (Fischer-344) inhalation 0.425 mg/L/8 hr; Particle size (um) 1
[OECD; SIDS Initial Assessment Reports for Sulfuric Acid (CAS No: 7664-93-9) for 11th SIAM (January 2001). Available from, as of October 5, 2009:
http://www.inchem.org/documents/sids/sids/7664939.pdf

LC50 Rat (NS) inhalation 0.510 mg/L/2 hr; Particle size (um) NS
[OECD; SIDS Initial Assessment Reports for Sulfuric Acid (CAS No: 7664-93-9) for 11th SIAM (January 2001). Available from, as of October 5, 2009:
http://www.inchem.org/documents/sids/sids/7664939.pdf *

SECTION 12: ECOLOGICAL INFORMATION

Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal Procedure: Sensor contains noble metals and must be disposed by licensed disposal firm. Follow federal, state and local regulations for disposing of small scale chemicals.

SECTION 14: TRANSPORT INFORMATION

DOT Classification: Not available

SECTION 15: REGULATORY INFORMATION

Sulfuric acid is listed on the following Government Inventory Lists: Australia AICS, Canada DSL, China IECSC, European Union EINECS, Japan ENCS, Korea KECI/KECL, Mexico INSQ, New Zealand NZIoC, Philippines PICCS, United States TSCA Section 8(b).

SECTION 16: OTHER INFORMATION

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SDS Revised: January 3, 2014