

Material Safety Data Sheet**Material Safety Data Sheet**

Product Name: Micro-Fuel Cells
 Mini-Micro-Fuel Cells, all classes
 Super Cells, all classes except T-5x
 Oxygen Sensors, all classes.

Manufacturer: TELEDYNE ELECTRONIC TECHNOLOGIES
 Sensor Technologies

Address: 16830 Chestnut Street, City of Industry, CA 91749

Phone: (818) 961-9221

Date Prepared or Last Revised: 08/08/91

Emergency Phone Number: (818) 961-9221

Section III—Physical and Chemical Data

Chemical and Common Names: Potassium Hydroxide (KOH), 15% (w/v)
 Granular Lead (Pb), pure
CAS Number: KOH 1310-58-3
 Pb 7439-92-1

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|-------------------------------------|---------------------------|--------------------------|
| | KOH | Pb |
| Melting Point/Range: | 10 to 0 °C | 328 °C |
| Boiling Point/Range: | 100 to 115 °C | 1744 °C |
| Specific Gravity: | 1.09 @ 20 °C | 11.34 |
| pH: | ≥15 | N/A |
| Solubility in Water: | Completely soluble | Insoluble |
| Percent Volatiles by Volume: | None | N/A |
| Appearance and Color: | Colorless, granular solid | Gray, metallic, lustrous |

Section III—Physical Hazards

Potential for fire and explosion: The electrolyte in the Micro-Fuel Cells is not flammable. There are no fire or explosion hazards associated with Micro-Fuel Cells.

Potential for reactivity: The sensors are stable under normal conditions of use. Avoid contact between the sensor electrolyte and strong acids.

Section IV—Health Hazard Data

Primary route of entry: Ingestion, eye/skin contact
Exposure limits: OSHA PEL: .05 mg/cu.m. (Pb)
ACGIH TLV: 2 mg/cu.m. (KOH)

Effects of overexposure

Ingestion: The electrolyte could be harmful or fatal if swallowed.
Oral LD50 (RAT) = 3650 mg/kg
Eye: The electrolyte is corrosive; eye contact could result in permanent loss of vision.
Dermal: The electrolyte is corrosive; skin contact could result in a chemical burn.
Inhalation: Liquid inhalation is unlikely.

Signs/symptoms of exposure: Contact with skin or eyes will cause a burning sensation and/or feel soapy or slippery to touch.

Medical conditions

aggravated by exposure: None

Carcinogenicity: NTP Annual Report on Carcinogens: Not listed
IARC Monographs: Not listed
OSHA: Not listed

Other health hazards: Lead is listed as a chemical known to the State of California to cause birth defects or other reproductive harm.

Section V—Emergency and First Aid Procedures

- Eye Contact:** Flush eyes with water for at least 15 minutes and get immediate medical attention.
- Skin Contact:** Wash affected area with plenty of water and remove contaminated clothing. If burning persists, seek medical attention.
- Ingestion:** Give plenty of cold water. Do not induce vomiting. Seek medical attention.
- Inhalation:** Liquid inhalation is unlikely.

Section VI—Handling Information

NOTE: The oxygen sensors are sealed, and under normal circumstances, the contents of the sensors do not present a health hazard. The following information is given as a guide in the event that a cell leaks.

Protective clothing: Rubber gloves, chemical splash goggles.

Clean-up procedures: Wipe down the area several times with a wet paper towel. Use a fresh towel each time.

Protective measures

during cell replacement: Before opening the bag containing the sensor cell, check the sensor cell for leakage. If the sensor cell leaks, do not open the bag. If there is liquid around the cell while in the instrument, put on gloves and eye protection before removing the cell.

Disposal: Should be in accordance with all applicable state, local and federal regulations.

NOTE: The above information is derived from the MSDS provided. The information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. TELEDYNE ELECTRONIC TECHNOLOGIES Sensor Technologies shall not be held liable for any damage resulting from handling or from contact with the above product.