

**BACHARACH, INC.**  
**MATERIAL SAFETY DATA SHEET**

This Material Safety Data Sheet has been prepared to comply with the EC Directive, Canadian WHMIS and OSHA Hazard Communication Regulations.

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION  
AND THE COMPANY/UNDERTAKING**

Bacharach, Inc.  
621 Hunt Valley Circle  
New Kensington, PA 15068

Emergency Phone: (800) 424-9300 (Chemtrec)  
Information Phone: (724) 334-5760  
Fax: (724) 334-5763

**Product Name:** Sensor, O<sub>2</sub> "R" Cell

**Product Number:** 51-7348

**MSDS Number:** 99-0138

**Revision Number:** 5

**Product Use:** Instrument Sensor

**MSDS Date of Preparation/Revision:** 3/31/05

**SECTION 2: COMPOSITION/ INFORMATION INGREDIENTS**

| Chemical Name             | CAS# / EINECS#        | %      | EU Classification (67/548/EEC) |
|---------------------------|-----------------------|--------|--------------------------------|
| Potassium Hydroxide 24%   | 1310-58-3 / 215-181-3 | 1-10%  | C R22, R35                     |
| Non-hazardous Ingredients | Not Applicable        | 90-99% | Not Applicable                 |

See Section 16 for further information on EU Classification.

**SECTION 3: HAZARDS IDENTIFICATION**

Sealed plastic sensor containing 7 cc of potassium hydroxide.

**Emergency Overview:** Contact with caustic solution contained inside the sensor may cause burns to the eyes and skin.

**EU Preparation Classification (1999/45/EC):** Corrosive (C) R35

**SECTION 4: FIRST AID**

**Eye Contact:** Immediately flush with water for 20 minutes, lifting the upper and lower lids. Get immediate medical attention.

**Skin Contact:** Immediately flush with water while removing contaminated clothing. Wash thoroughly with soap and water. Launder clothing before reuse. Get medical attention if irritation persists.

**Inhalation:** If irritation develops, remove victim to fresh air and get medical attention.

**Ingestion:** Do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Immediately dilute with 1-2 glasses of water. Get immediate medical attention.

**SECTION 5: FIRE AND EXPLOSION HAZARD DATA**

**Flash Point:** Not Combustible

**Test Method:** N/A

**Autoignition Temperature:** N/A

**Flammable Limits:** LEL: N/A

UEL: N/A

**Extinguishing Media:** Use any media appropriate for surrounding fire.

**Special Fire Fighting Procedures:** Firefighters should wear NIOSH approved positive pressure self contained breathing apparatus and full protective clothing for all fires involving chemicals.

**Unusual Fire And Explosion Hazards:** None

**Hazardous Combustion Products** Burning plastic may give off oxides of carbon and various hydrocarbons. Thermal decomposition of potassium hydroxide may yield potassium oxide.

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| <b>SECTION 6: ACCIDENTAL RELEASE MEASURES</b> |
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Avoid contact with caustic solution. Leakage is rare unless sensor is crushed. If leak occurs, dilute with water, neutralize with acetic acid and flush to sewer.

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| <b>SECTION 7: HANDLING AND STORAGE</b> |
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**Work Practices:** This sensor is sealed with a membrane that allows gas to pass through but keeps the liquid inside. Handle gently when opening packages and installing cell in the instrument. Do not puncture the cell membrane as potassium hydroxide may be released.

**Special Precautions:** Keep sensors away from children.

**Storage:** Store in a cool, dry location. Avoid crushing packages.

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| <b>SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION</b> |
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| Chemical Name             | Exposure Limits   |
|---------------------------|-------------------|
| Potassium Hydroxide       | 2 ppm*TLV-Ceiling |
| Non-hazardous Ingredients | None Established  |

**Ventilation:** No special ventilation is required.

**Respiratory Protection:** None required.

**Gloves:** Use rubber gloves to when handling sensor.

**Eye Protection:** Safety glasses or goggles recommended when handling sensor.

**Other Protective Equipment:** None required

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| <b>SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES</b> |
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**Appearance And Odor:** Sealed plastic sensor containing 7 cc of potassium hydroxide.

**pH:** 14

**Boiling Point:** Not Applicable

**Melting Point:** Not Applicable

**Solubility In Water:** Not Applicable

**Octanol/Water Coefficient:** Not Applicable

**Specific Gravity:** Not Applicable

**Vapor Pressure:** Not Applicable

**Vapor Density:** Not Applicable

**Percent Volatile:** Not Applicable

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| <b>SECTION 10: STABILITY AND REACTIVITY</b> |
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**Stability:** Stable

**Conditions To Avoid:** Not Applicable

**Incompatibility:** Potassium hydroxide reacts with acids, aluminum, tin, zinc, chlorinated hydrocarbons, acetone and organic materials.

**Hazardous Decomposition Products:** Burning plastic may give off oxides of carbon and various hydrocarbon. Thermal decomposition may yield potassium oxide.

**Hazardous Polymerization:** Will not occur.

**Conditions To Avoid:** Not Applicable

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| <b>SECTION 11: TOXICOLOGICAL INFORMATION</b> |
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**Potential Health Effects:**

**Eye Contact:** Contact with caustic solution will cause severe burns and damage.

**Skin Contact:** Contact with caustic solution will cause severe skin burns.

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**Inhalation:** Inhalation of caustic mist can cause respiratory and eye irritation, difficulty breathing, headache, nausea, and weakness. Severe overexposure may cause pulmonary edema.

**Ingestion:** Ingestion of caustic solution will cause severe burns to the mouth and gastrointestinal tract.

**Chronic Health Effects:** Ingestion of caustic solution will cause severe burns to the mouth and gastrointestinal tract.

**Carcinogen Status:** None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP or OSHA.

**Medical Conditions Aggravated By Exposure:** None under normal conditions of use.

**Acute Toxicity Data:** Potassium hydroxide LD50 oral rat: 273 mg/kg

**Irritancy Data:** The caustic solution is corrosive.

**Sensitization:** None of the components have been reported to cause sensitization in humans or animals.

**Reproductive Toxicity:** None of the components is known to cause reproductive toxicity in animals or humans.

**Teratogenicity:** None of the components is known to cause birth defects in animals or humans.

**Mutagenicity:** Potassium hydroxide has been found to be mutagenic in some test systems.

**Synergistic Effects:** There are no chemicals known to cause any additive adverse health effects.

## SECTION 12: ECOLOGICAL INFORMATION

Potassium Hydroxide: 24 hr LC50 Mosquito Fish: 80 ppm

## SECTION 13: DISPOSAL

Dispose in accordance with all local, state, and federal regulations.

RCRA Hazardous Waste Codes: This product contains small amounts of lead (29 grams) and Potassium Hydroxide (7 cc). RCRA waste codes that may apply at the point of disposal are D002 and D008. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

## SECTION 14: TRANSPORTATION DATA

Small quantities of corrosives less than 30 milliliters are excepted under 49CFR 173.4. Refer to 49CFR 173.4 for packaging and marking requirements.

**DOT Shipping Name:** Potassium Hydroxide Solution

**DOT Hazard Class:** 8

**UN Number:** UN1814

**Packing Group:** II

**DOT Labels Required (49CFR172.101):** Corrosive (or Excepted Quantity Marking)

**Hazardous Substance (49CFR172.101):** Not applicable

**Reportable Quantity:** Not applicable

**Emergency Response Guide Number:** 154

Small quantities of corrosives less than 30 milliliters are excepted under Section 2.7. Refer to IATA Section 2.7 for packaging and labeling requirements.

**IATA Shipping Name:** Potassium Hydroxide Solution

**IATA Hazard Class:** 8

**UN Number:** UN1814

**Packing Group:** II

**IATA Hazard Labels Required:** Corrosive (or Excepted Small Quantity Label)

## SECTION 15: OTHER REGULATORY INFORMATION

### U.S. FEDERAL REGULATIONS:

**SARA 311/312:** Hazard Categories for SARA Section 311/312 Reporting: Acute health

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**SARA 313:** This product contains the following chemicals subject to Annual Release Reporting Requirements under SARA Section 313 (40 CFR 372): None (article)

**CERCLA SECTION 103 Reportable Quantity:** 41,666 lbs. (Potassium Hydroxide – 1,000 lbs.)

**US Toxic Substances Control Act:** All of the components of this product are listed on the EPA TSCA Inventory.

**STATE REGULATIONS:**

**California Proposition 65:** This product contains the following substances known to the State of California to cause Cancer and/or Reproductive Harm: Lead (cancer, reproductive toxicity)

**INTERNATIONAL REGULATIONS:**

**Australian Inventory of Chemical Substances:** All of the components in this product are listed on the AICS Inventory.

**Canadian Environmental Protection Act:** All of the components of this product are listed on the Canadian Domestic Substances List.

**Canadian WHMIS Classification:** Not a controlled product  
This product has been classified in accordance with the hazard criteria in the CPR and the MSDS contains all the information required by the CPR.

**European Inventory Of Commercial Chemical Substances:** All of the components of this product are listed on the EINECS Inventory.

**European Community Labeling:** Although the contents of the cell are classified as R35, no labeling is required. No contact with cell contents occurs during normal use.

**Japanese Existing and New Chemical Substances:** All of the components of this product are existing chemical substances as defined in the Chemical Substance Control Law.

**Korean Existing Chemical Inventory:** All of the components in the product are listed on the KECL Inventory.

**Philippines Inventory of Chemicals and Chemical Substances:** All of the components in this product are listed on the PICCS Inventory.

**SECTION 16: OTHER INFORMATION**

**NFPA HAZARD RATING:** HEALTH: 1 FIRE: 0 REACTIVITY: 0

**EU Classes and Risk Phrases for Reference (See Sections 2 and 3):**

C Corrosive

R22

R35

**Date of Latest MSDS Revision:** 07/30/04

**Revision Summary:** Updated Format, Revised Section 13, 14, 15

The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of the product are not within the control of Bacharach, Inc., it is the users obligation to assure safe use of this product.