Material Safety Data Sheet

Section I – Product Identification

Product Name:	Type E Electrolyte
Common Name:	Potassium Hydroxide, 10%
Manufacturer:	Teledyne Instruments/Analytical Instruments
Address:	16830 Chestnut Street, City of Industry, CA 91748
Phone:	(626) 934-1500
Technical Support:	(626) 934-1673
Environment, Health and Safety:	(626) 934-1592
Date Prepared:	11/11/99
Revision Date:	2/5/08

Section II – Hazardous Ingredients/Composition

Material or Component	C.A.S. #	% by Weight	OSHA PEL	ACGIH
Water	7732-18-5	90		
Potassium hydroxide (KOH)	1310-58-3	10	2mg/m^3 (ceil)	2mg/m^3 (ceil)

Section III – Health Hazard Data

Routes of Entry:

Inhalation: Severe irritant to lungs and respiratory tract.

Ingestion: May be fatal if swallowed.

Skin: The electrolyte (potassium hydroxide) is corrosive; skin contact may cause irritation or severe chemical burns.

Eyes: The electrolyte (potassium hydroxide) is corrosive; eye contact may cause irritation or severe chemicals burns.

Acute Effects: The product is harmful if swallowed, inhaled or absorbed through the skin. This product may irritate eyes and skin on contact. It is extremely destructive to tissue of the mucous membranes, stomach, mouth, upper respiratory tract, eyes and skin.

Chronic Effects: Prolonged exposure to the product has a destructive effect on tissue. The product is toxic to the lungs and mucous membranes. Repeated or prolonged inhalation of vapors may lead to chronic respiratory irritation.

Signs and Symptoms of Exposure: Contact of the product with skin or eyes will cause a burning sensation and/or feel soapy or slippery to touch.

Carcinogenicity: NA

OSHA: NA

NTP: NA

Section IV – Emergency First Aid Procedures

In case of contact with the skin or eyes, immediately flush with plenty of water for at least 15 minutes and remove all contaminated clothing. Get medical attention immediately for eye contact. If skin irritation persists, seek medical attention.

If ingested, give large amounts of water and DO NOT INDUCE VOMITING. Obtain medical attention immediately.

If inhaled, remove to fresh air and obtain medical attention immediately.

Section V – Fire and Explosion Hazard Data

Flash Point: NA **Flammable Limits:** NA **LEL:** NA **UEL:** NA

Extinguishing Media: Use extinguishing media appropriate to surrounding fire conditions. No specific agents recommended.

Special Fire Fighting Equipment: Wear NIOSH/OSHA approved self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual Fire and Explosion Hazards: NA

Section VI – Cleanup Procedures

Wipe down the area several times with a wet paper towel. Use a fresh towel each time. Contaminated paper towels are considered hazardous waste.

Section VII – Precautions for Safe Handling and Storage

Keep container tightly closed and dry. Keep away from incompatibles as acids and moisture. Avoid contact with skin and eyes. Do not ingest. If ingested, seek medical advice immediately. Do not breathe fumes, vapor or spray.

May corrode metallic surfaces. Store in an appropriate container. Corrosive materials should be stored in a separate safety storage cabinet or room.

Section VIII – Exposure Controls/Personal Protection

Eye Protection: Chemical splash goggles

Hand Protection: Rubber gloves

Other Protective Clothing: Apron, face shield

Ventilation: No special ventilation requirements

Section IX – Physical/Chemical Characteristics

Material or Component	Boiling Point (°C)	Specific Gravity	Vapor Pressure	Melting Point (°C)	Density	Evap. Rate	Solubility in Water	Odor/Appearance Physical State
Potassium hydroxide (solid)	1320	2.04	NA	360	NA	NA	Complete	White or slightly yellow. No odor

Section X – Stability and Reactivity

Stability: Stable

Incompatibilities: Highly reactive with acids. Highly corrosive in presence of aluminum. Slightly corrosive to corrosive in presence of glass.

Hazardous Decomposition: NA

Hazardous Polymerization: Will not occur.

Section XI – Toxicological Information

Toxicity to Animals: Acute oral toxicity (LD50): 2730 mg/kg (Rat) (Calculated value for the KOH solution.)

Chronic Effects on Humans: The substance is toxic to lungs, mucous membranes.

Other Toxic Effects on Humans: Very dangerous in case of skin contact (corrosive, irritant), of eye contact (irritant), of ingestion, of inhalation.

Section XII – Ecological Information

Ecotoxicity: NA

Section XIII – Disposal Considerations

Waste must be disposed of in accordance with Federal, State and Local environmental control regulations. If discarded in its purchased form, this product is hazardous by its characteristics of corrosivity under RCRA.

EPA Waste Number: D002

Follow all Federal, State and Local regulations.

Section XIV – Transport Information

DOT Identification: Potassium hydroxide, solution, UN 1814, 8, II

Small Quantity Shipments: DOT: Regulated. Refer to Small Quantity Exceptions: 49 CFR 173.4

IATA: Regulated. Refer to IATA Dangerous Goods in Excepted Quantities, Sec. 2.7

Section XV – Regulatory Information

US Federal Regulations

1) OSHA – Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

2) SARA TITLE III

- Sec 302 (40 CFR Part 355)

Chemical Name	CAS #	%	TPQ lbs	RQ
None	NA	NA	NA	NA

- Sec 311 & 312

Chemical Name	Acute Health Haz	Chronic Health Haz	Fire Hazard	Sudden Release of Pressure Haz	Reactive
Potassium hydroxide	Yes	Yes	No	No	No

- Sec 313 (40 CFR Part 372): This product contains the following toxic chemicals subject to the reporting requirements of Section 313, of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Chemical Name	CAS #
None	NA

3) TSCA (Toxic Substances Control Act)

Components of this product are listed on the TSCA inventory.

4) CERCLA Section 102(A) (40 CFR Part 302) – Hazardous Substances and Reportable Quantities

Chemical Name	CAS #	RQ
Potassium hydroxide (solid)	1310-58-3	1,000 lbs.

State Regulations

California Proposition 65: WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Chemical ingredient(s) requiring this warning:

NONE

Massachusetts: Potassium hydroxide is a listed chemical.

Pennsylvania: Potassium hydroxide is a listed chemical.

International Regulations

Canada: Canadian Environmental Protection Act (CEPA): Potassium hydroxide, liquid, is on the Domestic Substances List (DSL) and is acceptable for use under the provisions of CEPA.

WHMIS: Class E: Corrosive liquid.

EEC: R22 – Harmful if swallowed.
R35 – Causes severe burns.

Section XVI – Other Information

All chemicals may pose unknown hazards and should be used with caution. While the information contained in this Material Safety Data Sheet is believed to be correct and is offered for your information, consideration and investigation, Teledyne Analytical Instruments assumes no responsibility for the completeness or accuracy of the information contained herein.