



Material Safety Data Sheet

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: ALKALINE BATTERY PREGEL

Product Use: Manufacture of batteries.

MSDS Date of Preparation: May 24, 2011

Company Identification

Duracell LaGrange Battery Plant

1514 Redding Drive
LaGrange, GA 30240

Telephone: 1-706-882-7113

Duracell Cleveland Battery Plant

501 Mouse Creek Road
Cleveland, TN 37312

Telephone: 1- 423- 478-6000

Duracell Lancaster Battery Plant

1551 Highway 9 Bypass
Lancaster, SC 29720

Telephone: 803-285-8401

Emergency Phone Number: CHEMTREC Emergency Response Hotline 1-800-424-9300 (US & Canada)

SECTION 2: HAZARDS IDENTIFICATION

Physical Appearance: Whitish liquid with little or no odor.

DANGER: CORROSIVE. Causes burns to all exposed tissues. May be harmful or fatal if swallowed. Inhalation of mists may cause severe irritation of the mucous membranes and respiratory tract. Inhalation of high concentrations may cause lung damage.

Potential Health Effects:

Eye Contact: Causes severe irritation and chemical burns. May cause permanent eye damage and blindness.

Skin Contact: Causes severe irritation and chemical burns. Prolonged contact may cause severe damage and scarring.

Inhalation: Inhalation of mists may cause severe irritation of the mucous membranes and respiratory tract with symptoms of coughing, wheezing and shortness of breath. Inhalation of high concentrations may cause lung damage.

Ingestion: Swallowing may cause severe irritation or burns to the gastrointestinal tract with nausea, abdominal pain, bleeding, tissue damage and shock. May be fatal if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Amount
Potassium Hydroxide	1310-58-3	40-55%
Water	77321-18-5	40-55%
Polyacrylic Acid	9003-01-4	1-2%
Starch-g-poly (2-propenamamide-co-2-propenoic acid) potassium salt	86132-14-3	<2%

SECTION 4: FIRST AID MEASURES

Eye Contact: Flush thoroughly with copious amounts of running water for at least 30 minutes. Hold eyelids open to assure thorough flushing. Seek immediate medical attention.

Skin Contact: Immediately remove contaminated clothing and shoes while flushing with water. Continue to flush exposed skin with water for at least 30 minutes. Seek immediate medical attention. Launder contaminated clothing before reuse and discard shoes and other items that cannot be decontaminated.

Inhaled: Move to fresh air. If irritation or other symptoms persists, seek medical advice. If breathing is difficult, have qualified personnel administer oxygen and seek immediate medical attention. If breathing has stopped, administer artificial respiration and seek immediate medical attention.

Swallowed: DO NOT induce vomiting. If the victim is alert, have them rinse their mouth with water and then drink one glass of water. Never give anything by mouth to a person who is unconscious or drowsy. Seek immediate medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Fire and Explosion Hazards: This product is not combustible. Potassium hydroxide may react with metals such as aluminum or zinc and generate flammable hydrogen gas.

Extinguishing Media: Use any media that is suitable for the surrounding fire. If water is used directly on this material, use flooding amounts of water as this material will react with water generating heat. Cool fire exposed containers with flooding quantities of water until well after fire is out.

Special Fire Fighting Procedures: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Fight fire from a distance or protected area. Cool fire exposed containers to prevent rupture.

Hazardous Combustion Products: None known.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Clean-up personnel should wear appropriate protective clothing to prevent eye and skin contact and inhalation of mists. This product may generate explosive hydrogen gas in contact with metals in the spill area. Eliminate all sources of ignition. Stop the flow of material if it is safe to do so. Contain the spill with an inert material. Neutralize spilled material and/or collect and place in suitable containers for disposal. Rinse the spill area with water after clean-up is complete. Collect rinse water for appropriate treatment and disposal. Avoid release to the environment.

SECTION 7: HANDLING AND STORAGE

Avoid generating and breathing mists. Use only in a well-ventilated area. Prevent contact with the eyes, skin and clothing. Wear suitable protective clothing and equipment. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling. Contact with metals may generate flammable hydrogen gas.

Storage: Store in a cool, dry area away from all incompatible materials.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	Exposure Limits
Potassium Hydroxide	2 mg/m ³ Ceiling ACGIH TLV
Polyacrylic Acid	None Established
Starch-g-poly (2-propenamide-co-2-propenoic acid) potassium salt	None Established

Ventilation: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Respiratory Protection: If airborne concentrations exceed the exposure limits, an approved respirator should be worn. Select and use respirators in accordance with national regulations.

Skin Protection: Wear rubber, neoprene or other impervious gloves. Impervious clothing is recommended if splashing is possible.

Eye Protection: Safety goggles and face shield required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Whitish liquid with little or no odor.

Specific Gravity: 1.4- 1.6

Water Solubility: Soluble

Vapor Pressure: 6.4 mmHg @25°C

Vapor Density: 1

pH: >13

Boiling Point: 133°C

Melting Point: -33°C

Flash Point: None

Autoignition Point: Not applicable

SECTION 10: STABILITY AND REACTIVITY

Stability: This product is stable.

Incompatibility/Conditions to Avoid: Acids, nitrogen containing organics, chlorinated alkenes, carbohydrates, phosphorus, explosives, organic peroxides, persulfates, aluminum, tin, zinc.

Hazardous Decomposition Products: Potassium hydroxides reacts with carbohydrates to form toxic carbon monoxide. Reaction with aluminum, tin and zinc releases flammable hydrogen gas. Thermal decomposition generates potassium oxide. Reaction with chlorinated alkenes and heat will generate chloroacetylene.

Hazardous Polymerization: Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity Data:

Potassium Hydroxide: LD50 oral rat estimated 500-700 mg/kg, LD50 dermal rabbit estimated >2000 mg/kg

Acrylic Polymer: LD50 oral rat >2500 mg/kg, LD50 dermal rabbit >3000 mg/kg

Starch-g-poly (2-propenamide-co-2-propenoic acid) potassium salt: No data available.

Chronic Effects: None currently known

Target Organs: Skin, eyes and respiratory system.

Carcinogenicity: None of the components of this product are listed as carcinogens by ACGIH, IARC, NTP or OSHA.

SECTION 12: ECOLOGICAL INFORMATION

No ecotoxicity data is available for the product. The following data is available for the components.

Potassium Hydroxide: TLM mosquito fish 80 mg/L/96 hr.

Acrylic Polymer: LC50 bluegill sunfish 580-2000 mg/L/96 hr.

Starch-g-poly (2-propenamide-co-2-propenoic acid) potassium salt: No data available.

SECTION 13: DISPOSAL INFORMATION

Disposal should be in accordance with Federal, state/provincial and local regulations.

SECTION 14: TRANSPORT INFORMATION

Transportation Information – This following applies to all modes of transport:

UN1814, Potassium Hydroxide Solution, 8, II

Note: RQ provisions apply to containers of 1818 lbs and more.

SECTION 15: REGULATORY INFORMATION

United States

OSHA Status: Hazardous

EPA TSCA Status: This product is listed on the US TSCA Inventory.

SARA 313/302/304/311/312 chemicals: None

California: This product contains 50 ppm benzene. Benzene is known to the State of California to cause cancer, developmental toxicity and male reproductive toxicity.

State Right-to-Know and CERCLA:

The following ingredients present in the product are listed on state right-to-know lists or state worker exposure lists

Ingredient	CAS #	Level	CERCLA RQ	State				
				IL	MA	NJ	PA	RI
Potassium Hydroxide	1310-58-3	40-55%	1000 lb	Y	Y	Y	Y	Y

SECTION 16: OTHER INFORMATION

P&G Hazard Rating: Health: 3 Fire: 0 Reactivity: 1

Revision Indicator: Complete review – no changes

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Data supplied is for use only in connection with occupational safety and health.

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