

**** MATERIAL SAFETY DATA SHEET ****

Potassium Hydroxide
 19431

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Potassium Hydroxide
 Catalog Numbers:
 S71978, S71979, S71979-1, S71979-2, P246 3, P246-3, P2463, P250 1, P250 10,
 P250 3, P250 50, P250 500, P250-1, P250-10, P250-3, P250-50, P250-500,
 P2501, P25010, P2503, P25050, P250500, P25050LC, P251 3, P251 500, P251-1,
 P251-10, P251-3, P251-50, P251-500, P2513, P251500, P25150KG, PFP25050LC,
 S71977, S72221D, WESP250500
 Synonyms:
 Caustic potash, lye, potassium hydrate
 Company Identification: Fisher Scientific
 1 Reagent Lane
 Fairlawn, NJ 07410
 For information, call: 201-796-7100
 Emergency Number: 201-796-7100
 For CHEMTREC assistance, call: 800-424-9300
 For international CHEMTREC assistance, call: 703-527-3887

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#
1310-58-3	Potassium hydroxide (KOH)	100	215-181-3

Hazard Symbols: C
 Risk Phrases: 35

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Appearance: white or yellow.
 Danger! Corrosive. Water-Reactive. Harmful if swallowed. Causes severe eye and skin burns. Causes severe digestive and respiratory tract burns.
 Target Organs: None.

Potential Health Effects

Eye:
 Causes severe eye burns. May cause irreversible eye injury. Contact may cause ulceration of the conjunctiva and cornea. Eye damage may be delayed.

Skin:
 Causes skin burns. May cause deep, penetrating ulcers of the skin.

Ingestion:
 Harmful if swallowed. May cause circulatory system failure. May cause perforation of the digestive tract. Causes severe digestive tract burns with abdominal pain, vomiting, and possible death.

Inhalation:
 Harmful if inhaled. Irritation may lead to chemical pneumonitis and pulmonary edema. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma.

Chronic:
 Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated eye contact may cause conjunctivitis.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:
 Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately.

Skin:
 Get medical aid immediately. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Discard contaminated clothing in a manner which limits further exposure.

Ingestion:
 Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation:
 Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:
 Treat symptomatically and supportively.

Antidote:
 None reported.

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Use water with caution and in flooding amounts. Contact with moisture or water may generate sufficient heat to ignite nearby combustible materials.

Extinguishing Media:
 For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
NFPA Rating: Not published.
Explosion Limits, Lower: Not available.
Upper: Not available.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:
 Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:
 Wash thoroughly after handling. Use with adequate ventilation. Do not allow water to get into the container because of violent reaction. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.

Storage:
 Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from strong acids. Keep away from water. Keep away from metals. Keep away from flammable liquids. Keep away from organic halogens.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:
 Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Chemical Name	Exposure Limits		
	ACGIH	NIOSH	OSHA - Final PELs
Potassium hydroxide C 2 mg/m3 (KOH)	2 mg/m3 TWA		none listed

OSHA Vacated PELs:
 Potassium hydroxide (KOH):
 No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:
 Wear safety glasses and chemical goggles or face shield if handling liquids.

Skin:
 Wear appropriate gloves to prevent skin exposure.

Clothing:
 Wear appropriate protective clothing to prevent skin exposure.

Respirators:
 Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State: Solid
Appearance: white or yellow
Odor: odorless
pH: 13.5 (0.1M solution)
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: 2408 deg F
Freezing/Melting Point: 680 deg F
Decomposition Temperature: Not available.
Solubility: Soluble in water
Specific Gravity/Density: 2.04
Molecular Formula: KOH
Molecular Weight: 56.1047

**** SECTION 10 - STABILITY AND REACTIVITY ****

DATE: 01/28/99 ACCT: 888235001
 INDEX: D90279502 CAT NO: P250500 PO NBR: UNI-92619

Chemical Stability:

Stable. Readily absorbs carbon dioxide and moisture from the air and deliquesces.

Conditions to Avoid:

Incompatible materials, moisture, contact with water, acids, metals.

Incompatibilities with Other Materials:

Generates large amounts of heat when in contact with water and may steam and splatter. Reacts with chlorine dioxide, nitrobenzene, nitromethane, nitrogen trichloride, peroxidized tetrahydrofuran, 2,4,6-trinitrotoluene, bromoform+ crown ethers, acids alcohols, sugars, germanium cyclopentadiene, maleic dicarbide. Corrosive to metals such as aluminum, tin, and zinc to cause formation of flammable hydrogen gas.

Hazardous Decomposition Products:

Oxides of potassium.

Hazardous Polymerization: Has not been reported.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:

CAS# 1310-58-3: TT2100000

LD50/LC50:

CAS# 1310-58-3: Oral, rat: LD50 = 273 mg/kg.

Carcinogenicity:

Potassium hydroxide (KOH) -
 Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology:

No data available.

Teratogenicity:

No information reported.

Reproductive Effects:

No data available.

Neurotoxicity:

No data available.

Mutagenicity:

No data available.

Other Studies:

No data available.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Ecotoxicity:

Not available.

Environmental Fate:

Not available.

Physical/Chemical:

Not available.

Other:

Not available.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Dispose of in a manner consistent with federal, state, and local regulations.

RCRA D-Series Maximum Concentration of Contaminants:

None listed.

RCRA D-Series Chronic Toxicity Reference Levels: None listed.

RCRA F-Series: None listed.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT

Shipping Name: POTASSIUM HYDROXIDE, SOLID

Hazard Class: 8

UN Number: UN1813

Packing Group: II

IMO

No information available.

IATA

No information available.

RID/ADR

No information available.

Canadian TDG

Shipping Name: POTASSIUM HYDROXIDE

Hazard Class: 8(9.2)

UN Number: UN1813

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL

TSCA

CAS# 1310-58-3 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

DATE: 01/28/99 ACCT: 888235001
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None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)

CAS# 1310-58-3: final RQ = 1000 pounds (454 kg)

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 1310-58-3: acute, reactive.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

CAS# 1310-58-3 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority

Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

Potassium hydroxide (KOH) can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California No Significant Risk Level:

None of the chemicals in this product are listed.

European/International Regulations

European Labeling In Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 35 Causes severe burns.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

S 2 Keep out of reach of children.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 27 Take off immediately all contaminated clothing.

S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)

CAS# 1310-58-3: 1

Canada

CAS# 1310-58-3 is listed on Canada's DSL/NDSL List.

This product has a WHMIS classification of D1B, E.

CAS# 1310-58-3 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 1310-58-3: OEL-AUSTRALIA:TWA 2 mg/m3. OEL-BELGIUM:STEL 2 mg/m3

OEL-DENMARK:TWA 2 mg/m3. OEL-FINLAND:TWA 2 mg/m3. OEL-FRANCE:STEL 2 m

g/m3. OEL-JAPAN:STEL 2 mg/m3. OEL-THE NETHERLANDS:TWA 2 mg/m3

TZERLAND:TWA 2 mg/m3. OEL-UNITED KINGDOM:TWA 2 mg/m3;STEL 2 mg/m3. OEL

IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV. OEL IN NEW ZEAL

AND, SINGAPORE, VIETNAM check ACGI TLV

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 1/05/1995 Revision #19 Date: 3/03/1998

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.