



**Albemarle Corporation**  
**Material Safety Data Sheet**  
 451 Florida Street, Baton Rouge, LA 70801  
 For Emergencies Only - Phone (504) 344-7147  
 For Non-Emergency Health & Safety Phone 1-800-535-3030  
 Representing Albemarle Foreign Sales Corporation  
 for Export Sales

ISSUE DATE: 01/09/04  
 SUPERSEDES: 06/15/2001  
 HMIS CLASSIFICATIONS:  
 HEALTH: 3  
 FLAMMABILITY: 0  
 REACTIVITY: 1

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PRODUCT IDENTIFICATION

PRODUCT NAME: Potassium Hydroxide (Flakes or Pellets)  
 CHEMICAL NAME: Potassium Hydroxide  
 CAS NO.: 1310-58-3  
 SYNONYMS: Caustic Potash; Lye; Potassium hydrate  
 CHEMICAL FORMULA: KOH

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SUMMARY OF HAZARDS

Causes burns to the eyes, skin, gastrointestinal and  
 respiratory tract.  
 See 'Chronic Effects of Overexposure.'

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OSHA HAZARDOUS COMPONENTS

CHEMICAL NAME	CAS NO.	NOTE	EXPOSURE LIMIT
Potassium hydroxide	1310-58-3	ND	2 mg/m3 Ceiling (OSHA/ACGIH)

NOTE: Carcinogenicity listing of components at concentrations  
 greater than or equal to 0.1% indicated by: @=NTP; #=IARC;  
 &=OSHA; +=ACGIH; \*=OTHER; ND=Not Designated.

## CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE/ODOR: White pellets or flakes having a crystalline fracture.

BOILING POINT: Not applicable.

VAPOR PRESSURE: Not established.

SOLUBILITY IN WATER: 770 g/l at 20C/68F.

SPECIFIC GRAVITY: 2.044

MELTING POINT: 360C/680F.

PH: 14 (10g/100ml H<sub>2</sub>O).

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## FIRE AND EXPLOSION HAZARDS

FLASH POINT(METHOD): Not applicable.

FLAMMABLE LIMITS: Not applicable.

EXTINGUISHING MEDIA: Dry chemical, water spray (fog), foam or carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES: If there is a fire close by, use suitable extinguishing agents.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Attacks many metals in the presence of water or humidity, releasing highly flammable gas (hydrogen) which generates fire or explosion hazards.

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## REACTIVITY DATA

STABILITY: Stable at ambient temperature and under normal conditions of use.

CONDITIONS TO AVOID: Protect from humidity and bad weather conditions.

MATERIALS TO AVOID: Reacts violently with acids; aluminum, copper and their alloys; water and aqueous solutions, ethers, organic material, nitro-compounds and strong bases.

HAZARDOUS POLYMERIZATION: Will not occur.

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## HEALTH HAZARDS

INHALATION: Expected to cause burns to respiratory tract.

EYE CONTACT: Expected to cause burns.

SKIN CONTACT: Expected to cause burns.

INGESTION: Expected to cause burns to the gastrointestinal tract.

CHRONIC EFFECTS OF OVEREXPOSURE: Chronic dermal exposure may cause inflammatory and ulcerative changes in the mouth

and possibly bronchial and gastrointestinal disorders.

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EMERGENCY FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

SKIN CONTACT: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Contaminated clothing cannot be washed clean and should not be reused for any purpose.

INGESTION: Do not induce vomiting. Give large quantities of water. Get medical attention immediately. Never give anything by mouth to an unconscious person.

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EXPOSURE CONTROL INFORMATION

EXPOSURE LIMITS: See 'Hazardous Components' section.

EYE PROTECTION: Chemical goggles and face shield.

PROTECTIVE GLOVES: Resistant to chemical penetration.

RESPIRATORY PROTECTION: Full facepiece, NIOSH approved organic vapor respirator.

LOCAL EXHAUST VENTILATION: At source of mists or dusts.

MECHANICAL VENTILATION: Recommended.

OTHER: If skin contact or contamination of clothing is likely, protective clothing should be worn.

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ENVIRONMENTAL PROTECTION

SPILLS OR LEAKS: Sweep or shovel spills into appropriate container for disposal.

DISPOSAL METHODS: Under the CERCLA/RCRA regulations currently in effect this material is regulated as a hazardous waste or material. If spilled, the solution would become a hazardous waste because of corrosivity. Following neutralization to render the material nonhazardous, the material may be disposed of in a manner acceptable to good waste management practice and in compliance with applicable local, state, and federal regulations.

STORAGE REQUIREMENTS: Store in well-ventilated, cool, dry area. Close container when not in use.

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ADDITIONAL PRECAUTIONS OR COMMENTS

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REGULATORY INFORMATION

TSCA:

THIS MATERIAL IS IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT (15 USC 2601 - 2629).

DOT DESCRIPTION/PROPER SHIPPING NAME:

Potassium hydroxide, solid  
DOT HAZARD CLASS: 8 (corrosive)  
DOT ID NUMBER: UN1813  
DOT PACKING GROUP: II

HAZARD CATEGORIES FOR SARA 311/312 REPORTING ARE INDICATED BELOW:

HEALTH	Immediate (Acute)	Yes
HEALTH	Delayed (Chronic)	Yes
PHYSICAL	Fire	No
PHYSICAL	Sudden Release of Pressure	No
PHYSICAL	Reactive	Yes
	Nuisance Mist/Dust Only	No

FOLLOWING ARE WHMIS CLASSIFICATIONS FOR THIS PRODUCT:

CLASS E  
WHMIS ASSESSMENT DATE: 06/15/01

COMPONENT NAME	CAS NO.	PERCENTAGE	REGULATION
Potassium hydroxide	1310-58-3	100.0	CERCLA
CERCLA --- RQ=1000			NJ RTK-SHH PA.RTK WHMIS-CN1 WHMIS-HC1

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ADDRESS CONTACT INFORMATION

MSDS prepared by: Health & Environment Department  
Albemarle Corporation

FOR ADDITIONAL NONEMERGENCY PRODUCT INFORMATION, CONTACT:

HEALTH AND ENVIRONMENT DEPARTMENT  
ALBEMARLE CORPORATION  
451 FLORIDA ST.  
BATON ROUGE, LA. 70801  
(800) 535-3030

THIS MATERIAL SAFETY DATA SHEET CONTAINS AT LEAST THE INFORMATION REQUIRED BY THE FEDERAL OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200(g) (2).

THE RESPONSIBILITY TO PROVIDE A SAFE WORKPLACE REMAINS WITH USER. THE USER SHOULD CONSIDER THE HEALTH HAZARDS AND SAFETY

INFORMATION CONTAINED HEREIN AS A GUIDE AND SHOULD TAKE THOSE PRECAUTIONS REQUIRED IN AN INDIVIDUAL OPERATION TO INSTRUCT EMPLOYEES AND TO DEVELOP WORK PRACTICE PROCEDURES FOR A SAFE WORK ENVIRONMENT.

THE INFORMATION CONTAINED HEREIN IS, TO THE BEST OF OUR KNOWLEDGE AND BELIEF, ACCURATE. HOWEVER, BECAUSE THE CONDITIONS OF HANDLING AND USE ARE BEYOND OUR CONTROL, WE MAKE NO GUARANTEE OF RESULTS, AND ASSUME NO LIABILITY FOR DAMAGES INCURRED BY THE USE OF THIS MATERIAL. IT IS THE RESPONSIBILITY OF THE USER TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.

01/09/04