

## BBC Biochemical

## MATERIAL SAFETY DATA SHEET

**Section 1. Chemical Product and Company Information**

Common Name:	Potassium Hydroxide	Code:	RW0292
Supplier:	BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	MSDS#:	RW0292
Synonym:	Caustic potash; Lye; Potassium hydrate; KOH	Validation Date:	3-27-09
Trade Name:	Not available	Print Date:	3-27-09
Material Uses:	Not available	Responsible Name:	Dr. B
Manufacturer:	Fisher Scientific 1 Reagent land Fairlawn, NJ 07410 201-796-7100	<b>In Case of Emergency: 1-800-424-9300 Chemtrec</b> <b>USA</b> <b>1-202-483-7616 Chemtrec Intrl</b> <b>1-800-635-4477</b>	

**Section 2. Composition and Information on Ingredients**

Name	CAS#	% by Weight	Exposure Limits
1) Potassium Hydroxide	1310-58-3	100	ACGIH 2 mg/m3 ceiling

**Section 3. Hazards Identification**

Physical State and Appearance	White or yellow solid
Emergency Overview	Danger! Corrosive. Water-reactive. Harmful if swallowed. Causes severe eye and skin burns. Causes severe digestive and respiratory tract burns.
Routes of Entry	Eye contact, inhalation, ingestion, skin contact.
Potential Acute Health Effects	<p><b>Eyes</b> Causes severe eye burns. May cause irreversible eye injury. Contact may cause ulceration of the conjunctiva and cornea. Eye damage may be delayed.</p> <p><b>Skin</b> Causes skin burns. May cause deep, penetrating ulcers of the skin.</p> <p><b>Inhalation</b> 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.</p> <p><b>Ingestion</b> 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.</p>
Potential Chronic Health Effects	Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated eye contact may cause conjunctivitis.
Medical Conditions	N/A
Aggravated by	
Overexposure	
Overexposure/Signs/Symptoms	

**Section 4. First Aid Measures**

Eye Contact	Immediately flush eyes thoroughly with water for at least 15 minutes. Get medical aid.
Skin Contact	Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Discard contaminated clothing in a manner which limits further exposure.
Inhalation	Remove to fresh air, give artificial respiration if breathing has stopped. Seek medical aid.
Ingestion	Get immediate medical attention; if conscious, give water freely. Do NOT induce vomiting. Get medical aid immediately.
Notes to Physician	Not available.

**Section 5. Fire Fighting Measures**

Flammability of the Product	Not flammable.
Auto-ignition Temperature	Not available.
Flash Points	Not available.

<b>Flammable Limits</b>	Not available.
<b>Products of Combustion</b>	Not available.
<b>Fire Hazards in Presence Of Various Substances</b>	Not available.
<b>Explosion Hazards in Presence of Various Substances</b>	Not available.
<b>Fire Fighting Media and Instructions</b>	Wear self-contained breathing apparatus.
<b>Protective Clothing (Fire)</b>	
<b>Special Remarks on Fire Hazards</b>	No unusual fire and/or explosion hazards indicated.
<b>Special Remarks on Explosion Hazards</b>	

### Section 6. Accidental Release Measures

<b>Small Spill and Leak</b>	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under section VIII. Contain the release and eliminate it's source, if this can be done without risk. Take up and containerize for proper disposal as described under Waste Disposal Method. Comply with Federal, State, and Local regulations on reporting releases.
<b>Large Spill and Leak</b>	Same as above.

### Section 7, Handling and Storage

<b>Handling</b>	Avoid prolonged, or repeated contact with skin. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.
<b>Storage</b>	Keep container closed. Store in cool, well ventilated area away from incompatible substances. Keep away from strong acids, water, metals, flammable liquids and organic halogens.

### Section 8. Exposure Controls / Personal Protection

<b>Engineering Controls</b>	
<b>Personal Protection</b>	
<b>Eyes</b>	Safety glasses with side shields should be worn at all times.
<b>Body</b>	Impervious protective clothing should be worn to prevent skin contact.
<b>Respiratory</b>	A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.
<b>Hands</b>	Protective gloves, rubber or equivalent, should be worn to prevent skin contact.
<b>Feet</b>	Impervious shoes should be worn to prevent skin contact.
<b>Personal Protection in Case of a Large Spill</b>	Safety glasses with side shields, impervious clothing and footwear, protective gloves, respirator if necessary.
<b>Product Name</b>	<b>Exposure Limits</b>
1)Potassium Hydroxide	ACGIH 2 mg/m3 ceiling
2)	
3)	
<b>Consult Local authorities before acceptable exposure limits.</b>	

### Section 9. Physical and Chemical Properties

<b>Physical State and Appearance</b>	Solid	<b>Odor:</b>	Odorless
<b>Molecular Weight</b>	56.1047	<b>Taste:</b>	Not available.
<b>Molecular Formula</b>	KOH	<b>Color:</b>	White or yellow
<b>pH</b>	1.5 (0.1M Solution)		
<b>Boiling/Condensation Point</b>	2408 deg F		
<b>Melting/Freezing Point</b>	680 deg F		
<b>Critical Temperature</b>	Not applicable.		
<b>Specific Gravity</b>	2.04		
<b>Vapor Pressure</b>	Not determined.		
<b>Vapor Density</b>	Not determined.		
<b>Volatility</b>	Not available.		
<b>Odor Threshold</b>	Not applicable.		
<b>Evaporation Rate</b>	Not determined.		
<b>VOC</b>	Not available.		
<b>Viscosity</b>	Not available.		
<b>Ionicity (in water)</b>	Not available.		

<b>Dispersion Properties</b>	Not available.
<b>Solubility</b>	Soluble in water.
<b>Physical Chemical Comments</b>	Not available.

### Section 10. Stability and Reactivity

<b>Stability and Reactivity</b>	Readily absorbs carbon dioxide and moisture from the air deliquesces.
<b>Conditions of Instability</b>	Avoid incompatible materials, moisture, contact with water, acids, metals.
<b>Incompatibility with Various Substances</b>	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.
<b>Hazardous Decomposition Products</b>	Oxides of potassium.
<b>Hazardous Polymerization</b>	Has not been reported.

### Section 11. Toxicological Information

<b>Toxicity to Animals</b>	LD50: oral rat: 273 mg/kg LC50: Draize test, rabbit skin: 50 mg/24H severe
<b>Chronic Effects on Humans</b>	
<b>Other Toxic Effects on Humans</b>	
<b>Special Remarks on Toxicity to Animals</b>	Not available.
<b>Special Remarks on Chronic Effects on Humans</b>	Not available.
<b>Special Remarks on Other Toxic Effects on Humans</b>	Not available.

### Section 12. Ecological Information

<b>Ecotoxicity</b>	Fish: Mosquito Fish: LC50 = 80.0 mg/L; 24 Hr; Unspecified.
<b>BODS and COD</b>	Not available.
<b>Biodegradable/OEDC</b>	Not available.
<b>Mobility</b>	Not available.
<b>Toxicity of the Products of Biodegradation</b>	Not available.
<b>Special Remarks on The Products of Biodegradation</b>	Not available.

### Section 13. Disposal Considerations

<b>Waste Information</b>	Not available.
<b>Waste Stream</b>	Not available.
<b>Consult your local or regional authorities.</b>	

### Section 14. Transport Information

<b>DOT Classification</b>	Potassium Hydroxide, solid; Hazard class 8; Un1813, packing group II.
<b>Marine Pollutant</b>	Not available.
<b>Hazardous Substances Reportable Quantity</b>	Not available.
<b>Special Provisions for Transport</b>	Not applicable.
<b>TDG Classification</b>	Potassium Hydroxide, solid; Hazard class 8; Un1813, packing group II.
<b>ADR/RID Classification</b>	ADR (Europe) information not available.
<b>IMO/IMDG Classification</b>	IMDG information not available.
<b>ICAO/IATA Classification</b>	See IATA Regulations, Potassium Hydroxide, solid; Hazard class 8; Un1813, packing group II.

**Section 15. Other Information**

**Label requirements**

<b>Hazardous Material Information System (U.S.A.)</b>	<b>Health</b>	3	<b>National Fire Protection Association (U.S.A.)</b>	
	<b>Fire Hazard</b>	0		
	<b>Reactivity</b>	1		
	<b>Personal Protection</b>			

**References**

**Other Special Considerations**

**Notice to Reader**

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*