



COLUMBUS CHEMICAL INDUSTRIES INC.

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Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements

U.S. Department of Labor

Occupational Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072

IDENTITY (as Used on Label and List)

Potassium Hydroxide

Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

Section I

Manufacturers /Distributor Address Number Street City State and Zip Code

Columbus Chemical Industries, Inc.

N4335 Temkin Road

Columbus, Wisconsin 53925

Emergency Telephone Number

CHEMTREC: 1 (800) 424-9300

Telephone Number for Information

1 (920) 623-2140

Date Prepared

02-09-2006

Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

| Hazardous Components (Specific Chemical Identity, Common Name(s)) | CAS # | OSHA PEL | ACGIH TLV | Other Limits Recommended | % (optional) |
|--|-----------|------------|---------------------|-----------------------------|--------------|
| Potassium Hydroxide* ** | 1310-58-3 | Not Listed | 2 mg/m ³ | Not available | 80-95% |

*Subject to SARA Section 313 Reporting Requirements.

** Caustic Potash

Section III - Physical/Chemical Characteristics

| | | | |
|------------------------------------|-------------------|---|-----------------|
| Boiling Point @760 mmHg | 1320 °C (2408 °F) | Specific Gravity (H ₂ O = 1) @20 °C (68 °F) | 2.044 |
| Vapor Pressure (mm Hg) @1013 °C | 60 mmHg | Melting Point | 400 °C (742 °F) |
| Vapor Density (AIR = 1) | Not available | Evaporation Rate (Butyl Acetate = 1) | Not available |

Solubility in Water

Complete in all proportions.

Appearance and Odor

White solid with no distinct odor.

Section IV Fire and Explosion Hazard Data

| Flash Point (Method Used) | Flammable Limits | LEL | UEL |
|---------------------------|------------------|----------------|----------------|
| Nonflammable | | Not applicable | Not applicable |

Extinguishing Media

Suitable to extinguish the supporting flame. Water spray, dry chemical, carbon dioxide, alcohol foam.

Special Fire Fighting Procedures

Wear full protective clothing and NIOSH/MSHA-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Use water spray to keep fire-exposed containers cool.

Unusual Fire and Explosion Hazards

May emit toxic fumes under fire conditions. CORROSIVE. Avoid exposing material to water. Direct contact with water can cause a violent exothermic reaction.

Section V Reactivity Data

| | | | | |
|-----------|----------|---|---------------------|------------------------|
| Stability | Unstable | | Conditions to Avoid | Air, aldehydes, water. |
| | Stable | X | | |

Incompatibility Materials to Avoid

Strong acids; alkali metals, reducing sugars, food and beverage products, air, water, organic halides, organic nitrates.

Hazardous Decomposition or Byproducts

Potassium, potassium oxide, can generate carbon monoxide upon contact with reducing sugars, food and beverage

Hazardous Polymerization**Conditions to Avoid**

| | | | |
|--|----------------|--|------|
| | May Occur | | None |
| | Will Not Occur | | |

Section VI Health Hazard Data

| Routes of Entry | Inhalation ? | Skin ? | Ingestion ? |
|-----------------|--------------|--------|-------------|
| | Yes | Yes | Yes |

Health Hazards (Acute and Chronic)

Irritating to skin, eyes, mucous membranes and respiratory tract. Ingestion is harmful and may be fatal. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Can cause severe lung damage. Ingestion or inhalation may cause damage to respiratory and digestive tracts.

| Carcinogenicity | NTP | IARC Monographs | OSHA REGULATED? |
|-----------------|------------|-----------------|-----------------|
| | Not Listed | Not Listed | Not Listed |

Signs and Symptoms of Exposure.

Burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting, erythema, blisters, tissue destruction, bloody diarrhea, edema, convulsions, bronchitis, pneumonia, cardiovascular collapse, shock and death.

Medical Conditions Generally Aggravated by Exposure

Asthma, emphysema, other respiratory diseases.

Emergency and First Aid Procedures EYES/SKIN: Flush immediately with plenty of water for at least 15 minutes. Remove contaminated clothing. Remove contact lenses if possible. Call physician if irritation develops. Wash clothing before reuse. INGESTION: DO NOT induce vomiting. Give several cups of water to conscious victim. Call a physician. INHALATION: Move to fresh air. Give oxygen if breathing is difficult, artificial respiration if not breathing.

Section VII Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled Evacuate unprotected personnel from area. Ventilate spill area. Wear self-contained breathing apparatus, rubber boots, heavy protective gloves and chemical safety goggles. Sweep up and place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Waste Disposal Method Dispose in accordance with all applicable Federal, state and local regulations.

Precautions to be Taken in Handling and Storing Keep container tightly closed. Store in corrosion-proof area. Do not get in eyes or on skin or clothing. Do not taste or swallow. Avoid breathing dust Use only with adequate ventilation. Wash thoroughly after handling. Protect from acids.

Other Precautions Do not get in eyes, on clothing. Do not breathe vapor. Use with adequate ventilation. Containers, even when empty, will retain residue. Always obey hazard warnings and handle empty containers as if they were full.

Section VII Control Measures

Respiratory Protection (Specify Type) NIOSH/MSHA-approved respirator with dust/mist cartridge.

| | | | | |
|-------------|----------------------|---------------------|---------|---------------------------------|
| Ventilation | Local Exhaust | <u>Recommended.</u> | Special | <u>Eye-wash station nearby.</u> |
| | Mechanical (General) | <u>Recommended.</u> | Other | <u>Safety shower nearby.</u> |

Protective Gloves Rubber gloves. **Eye Protection** Safety goggles

Other Protective Clothing or Equipment Lab coat or apron and rubber boots. Face-shield recommended.

Work /Hygienic Practices Wash exposed areas thoroughly after handling. Wash contaminated clothing before reuse.

Do NOT wear contact lenses. Wear appropriate personal protective equipment. CORROSIVE! Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure.

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