

Material Safety Data Sheet



CORPORATE HEADQUARTERS
9130 South Dadeland Boulevard
Suite 1607, Two Datan Center
Miami, Fl 33156-78513.USA

Nutri-K®

Date of Preparation: 14/01/02

MSDS No. 0004

Date of review: December 14, 2005

CHEMTEL Emergency Phone number: 800-255-3924. - For International shipments: 813-248-0585

Nutri-K®

Potassium Fertilizer

MSDS

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I. Product Identification

Product Name : Nutri-K®
Chemical Name: Potassium Hydroxide
Chemical Family: Inorganic plant nutrient
General Use : Fertilizer
EPA Number: Not required

II. Composition / Information on Ingredients

Ingredient	(CAS #)	Percentage	Hazardous
Potassium Hydroxide	1310-58-3	45%	Yes
Water	7732-18-5	55%	No

III. Physical Data

Appearance: Clear, colorless solution. **Odor:** Odorless.
Solubility: Completely soluble in water. **pH:** 13.5 (0.1 molar solution)
Specific Gravity: 10% Solution: 1.1 - to- 45% Solution: 1.45 **Vapor Density (Air=1):** No information found
% Volatiles by volume @ 21C (70F): 90 (as water) **Evaporation Rate (BuAc=1):** No information found.
Boiling Point: 10% Solution: 101C (213F) to 45% Solution: 132C (270F)
Melting Point: 10% Solution: -3C (27F) to 45% Solution -29C (-20F).
Vapor Pressure (mm Hg): 10% Solution: No Information Found - to - 45% Solution: 2 @ 20C (68F).

IV. Fire & Explosion Data

Fire: Not considered to be a fire hazard.
Explosion: Not considered to be an explosion hazard.
Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire. Avoid direct contact of liquid with water.
Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

V. Reactivity Hazard Data

Stability: Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products: Potassium oxide.
Hazardous Polymerization: Will not occur.
Incompatibilities: Strong acids, aluminum, tin, zinc, chlorinated hydrocarbons, acetone.
Conditions to Avoid: Heat, incompatibles.

VI. Health Hazard Data

Emergency Overview

POISON! DANGER! CORROSIVE. CAUSES SEVERE BURNS TO SKIN, EYES, RESPIRATORY TRACT, AND GASTROINTESTINAL TRACT. MATERIAL IS EXTREMELY DESTRUCTIVE TO ALL BODY TISSUES. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED.

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 3 - Severe (Poison)

Flammability Rating: 0 - None

Reactivity Rating: 1 - Slight

Contact Rating: 4 - Extreme (Corrosive)

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES

Storage Color Code: White Stripe (Store Separately)

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Potential Health Effects

Inhalation: Respiratory tract irritant, may cause serious burns on acute contact. Severe injury is usually avoided by the self-limiting coughing and sneezing symptoms.

Ingestion: Toxic! Corrosive to mucous membranes and may cause perforation of the esophagus and stomach. Abdominal pain, nausea, vomiting, general gastro-intestinal upset can be expected.

Skin Contact: Irritant, possibly corrosive if contact is prolonged. Soreness, redness, destruction of skin may result.

Eye Contact: Irritant, possibly corrosive to eye tissues. Tearing, redness, pain, impaired vision are symptoms.

Chronic Exposure: Development of a defatting dermatitis on prolonged contact with potassium hydroxide has been reported. Continued irritation may lead to increased susceptibility to respiratory illness.

Aggravation of Pre-existing Conditions: Persons with pre-existing skin disorders or eye problems, or impaired kidney or respiratory function may be more susceptible to the effects of the substance.

VII. Emergency and First Aid Procedures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion: DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

VIII. Special Protection Information

Airborne Exposure Limits:

For Potassium Hydroxide [1310-58-3]:

- OSHA Permissible Exposure Limit (PEL): 2 mg/m³ Ceiling

- ACGIH Threshold Limit value (TLV): 2 mg/m³ Ceiling

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, a half face piece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerin, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

IX. Spill or Leak Procedures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section VIII. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! US Regulations (CERCLA) require reporting spills and

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releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

J. T. Baker NEUTRACIT®-2 or BuCAIM® caustic neutralizers are recommended for spills of this product.

X. Special Precautions

Precautions to be Taken in Case Material is Handling and Storing : Keep in a tightly closed container. Store in a cool, dry, ventilated area. Protect against physical damage. Separate from acids and alkalis. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

XI. Shipping Information

Domestic (Land, D.O.T.)

Proper Shipping Name: POTASSIUM HYDROXIDE, SOLUTION

Hazard Class: 8

UN/NA: UN1814

Packing Group: II

Information reported for product/size: 19L

International (Water, I.M.O.)

HYDROXIDE, SOLUTION

Hazard Class: 8

UN/NA: UN1814

Packing Group: II

Information reported for product/size: 19L

International (Air, I.C.A.O.)

Proper Shipping Name: POTASSIUM HYDROXIDE, SOLUTION

Hazard Class: 8

UN/NA: UN1814

Packing Group: II

Information reported for product/size: 19L

XII. Other Information

NFPA Ratings: Health: 3 Flammability: 0 Reactivity: 1

Label Hazard Warning: POISON! DANGER! CORROSIVE. CAUSES SEVERE BURNS TO SKIN, EYES, RESPIRATORY TRACT, AND GASTROINTESTINAL TRACT. MATERIAL IS EXTREMELY DESTRUCTIVE TO ALL BODY TISSUES. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED.

Label Precautions: Do not breathe mist. Do not get in eyes, on skin, or on clothing. Avoid breathing mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Label First Aid: If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. In all cases get medical attention immediately.

Product Use: Laboratory Reagent.

Prepared by:

Revision Notes :

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