

MALLINCKRODT BAKER, INC. -- POTASSIUM HYDROXIDE -- 6810-00-281-9827

===== Product Identification =====

Product ID:POTASSIUM HYDROXIDE

MSDS Date:11/24/1997

FSC:6810

NIIN:00-281-9827

Status Code:A

MSDS Number: CKPFD

=== Responsible Party ===

Company Name:MALLINCKRODT BAKER, INC.

Address:222 RED SCHOOL LANE

City:PHILLIPSBURG

State:NJ

ZIP:08865

Country:US

Info Phone Num:800-582-2537

Emergency Phone Nu

m:908-859-2151

Resp. Party Other MSDS Num.:P5884

Preparer's Name:STRATEGIC SERVICES DIV

Chemtrec Ind/Phone:(800)424-9300

CAGE:70829

=== Contractor Identification ===

Company Name:MALLINCKRODT BAKER, INC.

Address:222 RED SCHOOL LANE

Box:City:PHILLIPSBURG

State:NJ

ZIP:08865

Country:US

Phone:800-582-2537

CAGE:70829

Company Name:PHOENIX INDUSTRIES INC

Address:1519 CHAMBERLAYNE PARKWAY

Box:City:RICHMOND

State:VA

ZIP:23222

Country:US

Phone:804-264-5183/FAX: 264-5535

Contract Num:SP0450-00-M-SD74

CAGE

:0YED2

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Composition/Information on Ingredients
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Ingred Name:POTASSIUM HYDROXIDE (CERCLA)

CAS:1310-58-3

RTECS #:TT2100000

Minumum % Wt:85.

Maxumum % Wt:90.

Other REC Limits:NONE RECOMMENDED

OSHA PEL:C 2 MG/M3

ACGIH TLV:C 2 MG/M3; 9596

EPA Rpt Qty:1000 LBS

DOT Rpt Qty:1000 LBS

Ingred Name:WATER

CAS:7732-18-5

RTECS #:ZC0110000

Minumum % Wt:10.

Maxumum % Wt:15.

Other REC Limits:NONE RECOMMENDED

OSHA PEL:NOT RELEVANT

ACGIH TLV:NOT RELEVANT

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Hazard
s Identification
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LD50 LC50 Mixture:LD50 (ORAL, RAT) IS 273 MG/KG.

Health Hazards Acute and Chronic:ACUTE- EYES/SKIN:CORROSIVE! CAUSES IRRITATION AND SEVERE BURNS. INHALATION: SEVERE IRRITANT. MAY CAUSE SERIOUS DAMAGE OF THE UPPER RESPIRATORY TRACT. HIGH CONCENTRATIONS CAN CAUSE LUNG DAMAGE. INGESTION:TOXIC! CAUSES SEVERE BURNS OF THE MOUTH, THROAT, AND STOMACH. ESTIMATED LETHAL DOSE: 5 GRAMS. CRHONIC - PROLONGED CONTACT WITH DILUTE SOLUTIONS OR DUST O

F POTASSIUM

HYDROXIDE HAS A DESTRUCTIVE EFFE CT ON TISSUE.

Explanation of Carcinogenicity:NONE SPECIFIED BY MANUFACTURER.

Effects of Overexposure:INHALATION: IRRITANT, COUGHING, SNEEZING, DAMAGE TO THE NASAL OR RESPIRATORY TRACT. INGESTION: SEVERE BURNS, VOMITING, DIARRHEA, SCARRING OF TISSUE AND DEATH MAY RESULT. SKIN: IRRITATION, SEVERE BRUNS . EYE CONTACT: IRRITATION, TEARING, REDNESS, SWELLING, SEVERE BURNS, AND POSSIBLE BLINDNESS.

Medical Cond Aggravated by Exposure:PERS

ONS WITH PRE-EXISTING SKIN

DISORDERS OR EYE PROBLEMS OR IMPAIRED RESPIRATORY FUNCTION MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THE SUBSTANCE.

===== First Aid Measures =====

First Aid: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. GET MEDICAL ATTENTION IMMEDIATELY. SKIN: IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MIN WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. THOROUGHLY WASH AND CLEAN BEFORE REUSE. GET MEDICAL ATTENTION IMMEDIATELY. EYE: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR 15 MIN, LIFTING LOWER AND UPPER EYELIDS OCCASIONALLY. GET MEDICAL ATTENTION IMMEDIATELY.

===== Fire Fighting Measures =====

Extinguishing Media:USE ANY MEANS SUITABLE FOR EXTINGUISHING SURROUNDING FIRE. NOT COMBUSTIBLE, BUT CONTACT WITH WATER OR MOISTURE MAY GENERATE ENOUGH HEAT TO IGNITE COMBUSTIBLES. Fire Fighting Procedures:SOLUTION PROCESS CAUSES FORMATION OF CORROSIVE MISTS. HOT OR MOLTEN MATERIAL CAN REACT VIOLENTLY WITH WATER. IN THE EVENT OF A FIRE, WEAR FULL PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE PRESSURE DEMAND OR OTHER POSITIVE PRESSURE MODE. Unusual Fire/Explosion Hazard:CAN REACT WITH CHEMICALLY REACTIVE METALS SUCH AS ALUMINUM, ZINC, MAGNESIUM, COPPER, ETC. TO RELEASE HYDROGEN GAS WHICH CAN FORM EXPLOSIVE MIXTURES WITH AIR.

===== Accidental Release Measures =====

Spill Release Procedures:VENTILATE AREA OF LEAK OR SPILL. KEEP UNNECESSARY/UNPROTECTED PEOPLE AWAY FROM AREA OF SPILL. WEAR PROTECTIVE EQUIPMENT. VACUUM/SWEEP UP AND PLACE IN APPROVED CONTAINERS FOR REUSING/DI

SPOSAL. DO NOT GENERATE DUST. DO NOT
FLUSH TO SEWER. NEUTRALIZE REMAINING TRACES OF MATERIAL WITH ACID.
PICK UP NEUTRALIZED SOLUTION WITH ABSORBENT.

Neutralizing Agent: J.T. BAKER NEUTRACIT (TM)-2 OR BUCAIM (TM) CAUSTIC
NEUTRALIZERS ARE RECOMMENDED FOR SPILLS OF PRODUCT SOLUTIONS.

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===== Handling and Storage =====

Handling and Storage Precautions: KEEP IN A TIGHTLY CLOSED CONTAINER,
STORED IN A COOL, DRY, VENTILATED AREA. PROTECT AGAINST PHYSICAL

DAMAGE. ISOLATE FROM INCOMPATIBLE SUBSTANCES. PROTECT FROM
MOISTURE. ADDITION TO WATER RELEASES HEAT WHICH CAN RESULT IN
VIOLENT BOILING AND SPATTERING. ALWAYS ADD SLOWLY AND IN SMALL
AMOUNTS.

Other Precautions: NEVER USE HOT WATER. CONTAINERS OF THIS MATERIAL MAY
BE HAZARDOUS WHEN EMPTY SINCE THEY RETAIN PRODUCT RESIDUES (DUST,
SOLIDS); OBSERVE ALL WARNINGS AND PRECAUTIONS LISTED FOR THE
PRODUCT.

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===== Exposure Controls/Personal Protection =====

Respiratory Protection: IF EXPOSURE LIMIT IS EXCEEDED A HALF-FACE
DUST/MIST RESPIRATOR MAY BE WORN. A FULL-FACE PIECE DUST/MIST
RESPIRATOR MAY BE WORN UP TO 50 TIMES THE EXPOSURE LIMIT, OR THE
MAXIMUM USE CONCENTRATION SPECIFIED BY THE APPROPRIATE REGULATORY
AGENCY, OR RESPIRATOR SUPPLIER. FOR EMERGENCIES, USE A
FULL-FACEPIECE POSITIVE-PRESSURE, AIR SUPPLIED RESPIRATOR.

Ventilation: A SYSTEM OF LOCAL AND/OR GENERAL EXHAUST IS RECOMMENDED TO
KEEP EMPLOYEE EXPOSURES BELOW THE
AIRBORNE EXPOSURE LIMITS. LOCAL
EXHAUST VENTILATION IS PREFERRED.

Protective Gloves: RUBBER OR NEOPRENE GLOVES.

Eye Protection: CHEMICAL SAFETY GOGGLES AND/OR A FULL FACE SHIELD WHERE
SPLASHING IS POSSIBLE.

Other Protective Equipment: ADDITIONAL PROTECTION INCLUDING IMPERVIOUS
BOOTS, APRON, OR COVERALLS, AS NEEDED IN AREAS OF UNUSUAL EXPOSURE.
MAINTAIN EYE WASH FOUNTAIN AND QUICK-DRENCH FACILITIES IN WORK
AREA.

Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER.

Supplement

al Safety and Health
NONE SPECIFIED BY MANUFACTURER.

===== Physical/Chemical Properties =====

HCC:B1
NRC/State Lic Num:NOT RELEVANT
Boiling Pt:=1320.C, 2408.F
Melt/Freeze Pt:=360.C, 680.F
Vapor Pres:1.0@714C (1317F)
Vapor Density:NO INFO
Spec Gravity:2.04
pH:13.5
Evaporation Rate & Reference:NO INFORMATION FOUND
Solubility in Water:52.8% @ 20C/68F
Appearance and Odor:WHITE, DELIQUESCENT SOLID - ODORLESS

===== Stability and Reactivity Data =====

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Stability Indicator/Materials to Avoid:YES
CONTACT WITH WATER, ACIDS, FLAMMABLE LIQUIDS AND ORGANIC HALOGEN
COMPOUNDS, ESPECIALLY TRICHLOROETHYLENE. NITROMETHANE AND OTHER
SIMILAR NITRO COMPOUNDS. METALS SUCH AS ALUMINUM, TIN AND ZINC.
Stability Condition to Avoid:HEAT, MOISUTRE, INCOMPATIBLES.
Hazardous Decomposition Products:CARBON MONOXIDE WHEN REACTING WITH
CARBOHYDRATES, AND HYDROGEN GAS WHEN REACTING WITH ALUMINUM, ZINC,
AND TIN. THERMAL OXIDATION CAN PRODUCE TOX
IC FUMES OF POTASSIUM
OXIDE (K2O).
Conditions to Avoid Polymerization:WILL NOT OCCUR.

===== Toxicological Information =====

Toxicological Information:ORA; RAT LD50 = 273 MG/KG; SKIN IRRITATION
DATA (STD DRAIZE 50 MG/24 H)= HUMAN/RABBIT: SEVERE, EYE IRRITATION
DATA 9 RABBIT, NON- STD TEST, 1 MG/24 H, RINSE): MODERATE.
INVESTIGATED AS A MUTAGEN. NOT A KNOWN OR ANTICIPATED CARCINOGEN.

===== Ecological Information =====

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Ecological:ENVIRONMENTAL FATE: NO INFORMATION FOUND. ENVIRONMENTAL TOXICITY: TLM : 80 PPM/ MOSQUITO FISH/ FRESH WATER.

===== Disposal Considerations =====

Waste Disposal Methods:WHATEVER CANNOT BE SAVED FOR RECOVERY OR RECYCLING SHOULD BE HANDLED AS HAZARDOUS WASTE AND SENT TO RCRA APPROVED WASTE FACILITY. PROCESSING, USE OR CONTAMINATION OF THIS PRODUCT MAY CHANGE THE WASTE MANAGEMENT OPTIONS. DISPOSE OF CONTAINER AND UNUSED CONTENTS I N ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS.

===== MSDS Transport Information =====

Transport Information:PSN: POTASSIUM HYDROXIDE, SOLID, 8, UN1813, II.

===== Regulatory Information =====

SARA Title III Information:SEC 302/313: NOT LISTED. CERCLA: 1,000 LBS. RCRA AND TSCA/PART 2: NOT LISTED. Federal Regulatory Information:LISTED ON TSCA INVENTORY/PART 1: YES. State Regulatory Information:LISTED ON JAPAN, AUSTRALIA, KOREA, CANADIAN DSL AND EC INVENTORY: YES.

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