

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

Product ID:SODIUM HYDROXIDE

MSDS Date:11/03/1985

FSC:6810

NIIN:00-174-6585

MSDS Number: BDFQP

=== Responsible Party ===

Company Name:MALLINCKRODT INC., SCIENCE PRODUCTS DIVISION

Address:PARIS BYPASS

Box:M

City:PARIS

State:KY

ZIP:40361

Country:US

Info Phone Num:314-982-5000

Emergency Phone Num:314-982-5000

CAGE:62910

=== Contractor Identificat

ion ===

Company Name:MALLINCKRODT SPECIALTY CHEMICALS CO

Address:222 RED SCHOOL LANE

Box:City:PHILLIPSBURG

State:NJ

ZIP:08865

Country:US

Phone:908-859-2151

CAGE:62910

===== Composition/Information on Ingredients =====

Ingred Name:SODIUM HYDROXIDE (SARA III)

CAS:1310-73-2

RTECS #:WB4900000

Fraction by Wt: 100%

OSHA PEL:2 MG/M3

ACGIH TLV:C 2 MG/M3; 9293

EPA Rpt Qty:1000 LBS

DOT Rpt Qty:1000 LBS

===== Hazards Identification =====

Routes of En

try: Inhalation:YES Skin:NO Ingestion:YES

Health Hazards Acute and

Chronic:EYES:CORROSIVE,IRRITATION,BURNS,BLINDNESS;SKIN:CORROSIVE,IRRITATION,BURNS,SCARRING;INHALATION:SEVERE IRRITANT.EFFECTS VARY FROM MILD IRRITATION TO SERIOUS DAMAGE OF UPPER RESPIRATORY TRACT.SEVERE PNEU MONITIS MAY OCCUR;INGESTION:CORROSIVE,BURNS MOUTH,THROAT,STOMACH,SEVERE SCAR OF TISSUE,DEATH.CHRONIC:DESTRUCT.TO TISSUE.

Effects of Overexposure:SEE HEALTH HAZARDS

Medical Cond Aggravated by Exposu

re:PERSONS W.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:EYES:FLUSH W.PLENTY WTR FOR AT LEAST 15 MIN.SEE DOCTOR IMM;SKIN:FLUSH W.PLENTY WTR FOR AT LEAST 15 MIN WHILE REMOVNG CLOTH & SHOES.SEE DOCTOR IMM;INHALATION:REMOVE TO FRESH AIR.IF NOT BREATHING GIVE C PR.IF BREATHING IS DIFFICULT,GIVE O*2.SEE DOCTO

R;INGESTION:DO NOT INDUCE VOMIT.GIVE WTR OR MILK.NOTHING BY MOUTH IF UNCONSCIOUS.SEE DOCTOR IMMEDIATELY.

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

Extinguishing Media:EXTINGUISH WITH AGENT SUITABLE FOR SURROUNDING FIRE. SEE SUPP

Fire Fighting Procedures:WEAR CHEMICAL PROTECTIVE SUIT AND NIOSH-APPROVED SCBA WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE MODE.

Unusual Fire/Explosion Hazard:HOT OR MOLTEN MATERIAL CAN REACT VIOLENTLY WITH WATER. C

AN REACT WITH CERTAIN METALS SUCH AS ALUMINUM TO GENERATE FLAMMABLE HYDROGEN GAS.

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

Spill Release Procedures:CLEAN UP PERSONNEL REQUIRE PROTECT.CLOTHING & RESP.PROTECT.FROM DUST.SWEEP,SCOOP OR PICK UP SPILLED MTL.AVOID DUSTING.TRANSFER WASTE TO A CLOSED METAL CONTAINER & SEND TO AN RCRA-APPVD WASTE DISPOSAL FACILITY.DO NOT FLUSH TO THE SEWER.

Neutralizing Agent:5% ACETIC ACID

===== Handling and

Storage =====

Handling and Storage Precautions:STORE IN COOL,DRY WELL VENTED LOW FIRE RISK AREA. PROTECT FROM HEAT,SHOCK,FRICITION. KEEP CONTAINERS CLOSED.
Other Precautions:KEEP AWAY FROM INCOMPATIBLE MATERIALS. ALWAYS ADD THE CAUSTIC TO WATER WHILE STIRRING;NEVER THE REVERSE.

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

Respiratory Protection:IF TLV IS EXCEEDED,A DUST/MIST RESP. WITH CHEM. GOGGLES MAY BE WORN,IN GENERAL,UP TO 10 TIMES TLV. CONSULT RESP. SUPPLIER FOR LIMITATNS. ALTERNATIVELY,USE A SUPPLIED AIR FULL FACEPIECE RESPIRATOR OR A IRLINED HOOD.
Ventilation:LOCAL EXHAUST TO ELIMINATE MISTS/FUMES/GASES.
Protective Gloves:IMPERVIOUS
Eye Protection:CHEM.SFTY GOGGLES AND/OR FULL FACESHIELD
Other Protective Equipment:IMPERVIOUS PROTECTIVE CLOTHING,INCLUDING BOOTS,LAB COAT,APRON OR COVERALLS TO PREVENT SKIN CONTACT.EYE WASH&SFTY SHOWER
Work Hygienic Practices:WASH THOROUGHLY AFTER HANDLING. THIS SUBSTANCE

IS CLASSIFIED AS A POISON.
Supplemental Safety and Health
MTLS TO AVOID,CONT'D:CONTACT W.NITROMETHANE & OTHER SIMILAR NITRO COMPDS CAUSES FORMATION OF SHOCK-SENSITIVE SALTS;CONTACT W.METALS SUCH AS ALUMINUM,TIN,AND ZINC CAUSES FORMATION OF FLAMMABLE HYDROGEN GAS.ADDING WATER TO CAUSTIC SOLUTION GENERATES LARGE AMOUNTS OF HEAT.

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

HCC:B1
Boiling Pt:=1945.6C, 3534.F
Melt/Freeze Pt:=317.8C, 604.F
Vapor Pres:NEGL
IGIBLE
Spec Gravity:2.13
Solubility in Water:APPRECIABLE
Appearance and Odor:WHITE, DELIQUESCENT PELLETS.

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

Stability Indicator/Materials to Avoid:YES
CONTACT WITH WTR,ACIDS,FLAMM LIQ,AND ORG.HALOGEN CMPDS,ESPECIALLY TRICHLOROETHYLENE MAY CAUSE FIRE/EXPLOSION-SEE SUPPL.
Stability Condition to Avoid:VERY HYGROSCOPIC.CAN SLOWLY PICK UP MOISTURE FROM AIR AND REACT WITH CO2 IN AIR TO FORM SODIUM CARBONATE.

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

Waste Disposal Methods:CAUTION!FLOOR AND OTHER SURFACE MAY BE
SLIPPERY.DO NOT CONTACT WITH WATER.NEUTRALIZE TRACES WITH DILUTE
ACID.ENSURE COMPLIANCE WITH LOCAL,STATE AND FEDERAL REGULATIONS.

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