

MALLINCKRODT INC SCIENCE PRODUCTS DIVISION -- SODIUM HYDROXIDE SOLUTION 50% --  
6810-01-051-3050

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

Product ID:SODIUM HYDROXIDE SOLUTION 50%

MSDS Date:04/06/1989

FSC:6810

NIIN:01-051-3050

MSDS Number: BQFCM

=== Responsible Party ===

Company Name:MALLINCKRODT INC SCIENCE PRODUCTS DIVISION

Address:PARIS BYPASS

Box:M

City:PARIS

State:KY

ZIP:40361

Country:US

Info Phone N

um:314-982-5000

Emergency Phone Num:314-982-5000

CAGE:62910

=== Contractor Identification ===

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: 50% %

Other REC Limits:NONE RECOMMENDED

OSHA PEL:2 MG/M3

ACGIH TLV:C 2 MG/M3; 9293

EPA

Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:WATER  
CAS:7732-18-5  
RTECS #:ZC0110000  
Fraction by Wt: BALANCE  
Other REC Limits:NONE RECOMMENDED

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:SEVERE RESPIRATORY TRACT IRRITATION,  
SEVERE PNEUMONITIS, GASTROINTESTINAL BURNS/IRRITATION, SKIN  
IRRITATION/BURNS, SEVERE EYE BURNS  
, BLINDNESS.

Explanation of Carcinogenicity:PRODUCT CONTAINS NO INGREDIENTS  
CURRENTLY CLASSIFIED AS CARCINOGENIC BY NTP, IARC OR OSHA.

Effects of Overexposure:EFFECTS FROM INHALATION OF MIST VARY FROM MILD  
IRRITATION TO SERIOUS DAMAGE OF UPPER RESPIRATORY TRACT DEPENDING  
ON SEVERITY OF EXPOSURE. SWALLOWING MAY CAUSE SEVERE BURNS OF  
MOUTH, THROAT, AND STOMACH. SEVERE SCARRING OF TISSUE MAY  
RESULT.SKIN CONTACT CAN CAUSE SEVERE BURNS AND SCARRING. EYE  
CONTACT - BURNS/BLINDN

ESS

Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN  
DISORDERS OR EYE PROBLEMS OR IMPAIRED RESPIRATORY FUNCTION MAY BE  
MORE SUSCEPTIBLE TO THE EFFECTS OF 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 OR MILK IF  
AVAILABLE. GET MEDICAL ATTENTION  
IMMEDIATELY. SKIN/EYES: IMMEDIATELY FLUSH WITH WATER FOR 15  
MINUTES. CALL PHYSICIAN IMMEDIATELY.

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

Flash Point:NONFLAMMABLE  
Autoignition Temp:Autoignition Temp Text:NONE  
Lower Limits:NOT GIVEN  
Upper Limits:NOT GIVEN  
Extinguishing Media:USE ANY MEANS SUITABLE FOR EXTINGUISHING FIRE.  
ADDING WATER TO CAUSTIC SOLUTION GENERATES LARGE AMOUNTS OF HEAT.  
Fire Fighting Procedures:WEAR FULL PR

PROTECTIVE CLOTHING AND

NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL  
FACEPIECE OPERATED IN THE PRESSURE DEMAND MODE.

Unusual Fire/Explosion Hazard:NONE SPECIFIED BY MANUFACTURER.

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

Spill Release Procedures:VENTILATE AREA OF LEAK OR SPILL. CLEAN-UP  
PERSONNEL REQUIRE PROTECTIVE CLOTHING. CONTAIN AND RECOVER LIQUID  
WHEN POSSIBLE. ABSORB WITH VERMICULITE, DRY SAND, EARTH OR SIMILAR  
MATERIAL. DO NOT F

LUSH TO SEWER. FLOOR AND OTHER SURFACES MAY  
BESLIPPERY.

Neutralizing Agent:DILUTE ACIDS

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

Handling and Storage Precautions:KEEP IN TIGHTLY CLOSED CONTAINER.  
PROTECT FROM PHYSICAL DAMAGE. STORE IN A COOL, DRY, VENTILATED AREA  
AWAY FROM SOURCES OF HEAT, MOISTURE.

Other Precautions:ALWAYS ADD THE CAUSTIC TO WATER WHILE STIRRING; NEVER  
THE REVERSE. REMOVE CONTAMINATED CLOTHING AND SHOES.

===== Exposure Con  
trols/Personal Protection =====

Respiratory Protection:IF TLV IS EXCEEDED, A DUST/MIST RESPIRATOR WITH  
CHEMICAL GOGGLES MAY BE WORN, IN GENERAL, UP TO TEN TIMES THE TLV.  
CONSULT RESPIRATOR SUPPLIER FOR LIMITATIONS. ALTERNATIVELY, USE  
SUPPLIED AIR FULL FACEPIECE RESPIRATOR OR AIRLINED HOOD.

Ventilation:LOCAL EXHAUST VENTILATION IS GENERALLY PREFERRED BECAUSE IT  
CAN CONTROL THE EMISSIONS AT THE SOURCE.

Protective Gloves:IMPERVIOUS

Eye Protection:SAFETY GOGGLES/FACE SHIE  
LD

Other Protective Equipment:IMPERVIOUS CLOTHING, INCLUDING BOOTS, LAB  
COAT, APRON OR COVERALLS. MAINTAIN EYEWASH FOUNTAIN AND  
QUICK-DRENCH FACILITY.

Work Hygienic Practices:WASH WITH SOAP AND WATER AFTER HANDLING PRODUCT  
AND BEFORE EATING DRINKING OR SMOKING.

Supplemental Safety and Health  
NONE SPECIFIED BY MANUFACTURER.

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

HCC:B1

Boiling Pt:=145.C, 293.F

Melt/Freeze Pt:M.P/F.P Text:NOT GIVEN

Vapor Pres:13

Vapor De

nsity:NOT GIVEN

Spec Gravity:1.53

pH:14

Viscosity:NOT GIVEN

Evaporation Rate & Reference:NOT GIVEN

Solubility in Water:COMPLETE

Appearance and Odor:CLEAR, COLORLESS SOLUTION, NO ODOR

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

Stability Indicator/Materials to Avoid:YES

ACIDS, ORGANIC HALOGEN COMPOUNDS, ESPECIALLY TRICHLOROETHYLENE,  
NITROMETHANE, ALUMINUM, TIN, ZINC

Stability Condition to Avoid:MOISTURE, WATER

Hazardous Decomposition Products:SODIUM OXIDE. CONTAC  
T WITH ALUMINUM,

TIN AND ZINC CAUSE FORMATION OF FLAMMABLE HYDROGEN GAS.

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

Waste Disposal Methods:PREVENT WASTE FROM CONTAMINATING SURROUNDING  
ENVIRONMENT. DISCARD ANY PRODUCT, RESIDUE, DISPOSAL CONTAINER OR  
LINER IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

Disclaimer (provided with this information by the compiling agencies):

This information is formulated for use by elements of the Department

o

f Defense. The United States of America in no manner whatsoever,  
expressly or implied, warrants this information to be accurate and  
disclaims all liability for its use. Any person utilizing this  
document should seek competent professional advice to verify and  
assume responsibility for the suitability of this information to their  
particular situation.