

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

Num: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

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===== 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 BURN
S, 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/BLIND
NESS
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.

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===== 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.

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===== 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 P

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

FLUSH 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 Co
ntrols/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 SHI
ELD

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 D

ensity: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. CONTA
CT 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.

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