

MALLINCKRODT INC.,SCIENCE PRODUCTS DIVISION -- BROMINE, CAT #0441 -- 6810-00-236-5342

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

Product ID:BROMINE, CAT #0441

MSDS Date:01/01/1987

FSC:6810

NIIN:00-236-5342

MSDS Number: BDLSY

=== 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

Emer

gency 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:BROMINE (SARA III)

CAS:7726-95-6

RTECS #:EF9100000

Fraction by Wt: >98%

OSHA PEL:0.1PPM/0.3 STEL

ACGIH TLV:O.1PPM/0.3 STEL;9192

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

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Effects of Overexposure:INH:LIQ/VAP CORR TO BODY
TISSUES;ING:CORR/VOMITG,SORE THROAT;SKIN/EYES:CORR.CAUSES
PAIN,BLRRD VISION

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

First Aid:INHAL:RMV TO FRESH AIR.IF NEEDED,GIVE CPR/OXYGEN.GET
MD;INGEST:GIVE SEVRL GL OF WATER.DO NOT INDUCE VOMITG.IMMED GET
MD;SKIN:FLUSH W/LG QTY OF H*2O FOR 15 MIN.REMV CONTAMTD CLOTHES.GET
MD;EYES:IMMED F LUSH W/PLENTY OF H*2O FOR AT LEAST 15 MIN.GET MD.

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

Flash Point:NONE
Extinguishing Media:EXTINGUISH W. AGENT SUITABLE FOR SURROUNDING FIRE.
Fire Fighting Procedures:WEAR SELF-CNTD BRTHG,APP H*2O SPRAY TO COOL
CONTR.
Unusual Fire/Explosion Hazard:NOT CONSDRD AS EXPLSN HAZARD;FUMES ARE
EMITD WHEN HEATD.VAP CAN FLOW ALONG SURFCS TO LYING AREAS.

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

Spill Release Procedures:ESTABLSH PLAN/TRNG FOR EMERGY.KEEP
UP
WIND.VENT/EVAC AREA.USE PROTCTV CLOTHG/RESP EQUIP.CONTAIN/RECUR
SPILLS IF POSS.NEUTRLZ SM SPILLS W/NA*2S*2O*3 SOLN.DIKE LG SPILL
W/SAND.SPRAY WATER TO 1 INCH.CAREF ULLY,NEUTRLZ VAP IN AIR W/ANHYD
NH*3(SEE DISPOSL)*

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

Handling and Storage Precautions:KEEP IN TIGHTLY CLOSED CONTNRS AT
COOL,DRY,VENTILATED PLACE.PROTECT AGAINST PHY DAMAGE.KEEP ABOVE 20F
TO AVOID FREEZING BUT AVOID HEATG ABOVE ATM TEMP
Other Preca
utions:AVOID BREATHING MIST.USE W/ADEQUATE VENTILATION.KEEP
CONTAINRS CLOSED.WASH THOROUGHLY AFTER HANDLING.AVOID SKIN,EYES &
CLOTHING CONTACT.**NOTE:ALLOW ONLY QUALIFIED PERSONS TO WORK
W/BROMINE.

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

Respiratory Protection:SUPPLIED AIR RESPIR/SCBA; ESCAPE: GAS MASK
Ventilation:LOCAL EXHAUST TO MAINTN BELOW TLV.
Protective Gloves:IMPERVIOUS
Eye Protection:GOGGLES/FACE SHIELD
Other Protective Equipment:FULL PROTECTIVE

CLOTHING,SAFETY SHOWER,EYE
WASH STATION

Supplemental Safety and Health

MSDS FROM MFR DATED:1 AUG 85 CONFORMS TO OSHA HAZ COMM STD;REACTS
W/WATER OR STEAM TO PRODUCE FUMES OF HYPOBROMOUSACID & HYDROGEN
BROMIDE;

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

HCC:C1

Boiling Pt:B.P. Text:58C(136F)

Vapor Pres:175

Vapor Density:5.5

Spec Gravity:3.1

Solubility in Water:MODERATE

Appearance and Odor:DARK,REDDISH-BROWN FUMING LIQUID W/PUNGENT ODOR

===== St
ability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

WATER,REDUCING AGENTS,FLAMM MATL,HG,TI,&AL.

Hazardous Decomposition Products:EMITS FUMES OF BROMINE & BROMIDES UPON
THRML DECOMPOSITION.

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

Waste Disposal Methods:*NEUTRLZ LIQ BROMINE W/SOLNS OF POT

CARBONATE,SOD CARBONATE OR SOD BICARBONATE.COLLECT OR FLUSH TO SUMP
FOR DISPOSAL; DISPOSAL:NEUTRALIZED WASTE MAY BE CONTRNZD & DISP
OSD

IN AN APPRVD WASTE DISPOSAL F ACILITY I/AW LOC,ST,FED REGS;SALVAGE
BROMIN WASTE

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