

FISHER SCIENTIFIC CO -- BROMINE, CAT NO B38550 -- 6810-00-261-9235

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

Product ID:BROMINE, CAT NO B38550

MSDS Date:03/14/1990

FSC:6810

NIIN:00-261-9235

MSDS Number: BMCBP

=== Responsible Party ===

Company Name:FISHER SCIENTIFIC CO

Address:585 ALPHA DR

City:PITTSBURGH

State:PA

ZIP:15238-2911

Country:US

CAGE:22527

=== Contractor Identification ===

Company Name:FISHER S

CIENTIFIC CO

Address:2000 PARK LN

Box:City:PITTSBURGH

State:PA

ZIP:15275

Country:US

Phone:412-490-8586

CAGE:22527

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

Ingred Name:BROMINE (SARA III)

CAS:7726-95-6

RTECS #:EF9100000

Fraction by Wt: 100%

Other REC Limits:NONE SPECIFIED

OSHA PEL:0.1PPM/0.3 STEL

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

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

LD50 LC50 Mixture:LCL0 (ORAL-HUMAN) IS 14 MG/KG.

Routes of Entry: Inhal

ation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:ACUTE/CHRONIC: RESPIRATORY DIFFICULTY WITH ASTHMA, CREPITATIONS IN THE LUNGS & A GENERALIZED VESICULAR OR MORBILLIFORM RASH, INFLAMMATORY LESIONS OF THE MUCOUS MEMBRANES & FATAL CHEMICAL BURNS OF THE LUNGS, ANOREXIA, INDIGESTION, IRRITABILITY, DEEP SURFACE SKIN BURNS, SLOW HEALING ULCERS, SEVERE GASTROENTERITIS & DEATH

Explanation of Carcinogenicity:THIS C

OMPOUND CONTAINS NO INGREDIENTS AT

CONCENTRATIONS OF 0.1% OR GREATER THAT ARE CARCINOGENS OR SUSPECT CARCINOGENS.

Effects of Overexposure:MAY CAUSE HEADACHE, DIZZINESS, COUGHING, NAUSEA, COPIOUS MUCOUS SECRETION, NOSEBLEED, FEELING OF OPPRESSION, VERTIGO, STOMACH PAINS, HOARSENESS, CHEST PAIN, JOINT PAIN, BROWN SKIN DISCOLORATION, SECON D & THIRD DEGREE BURNS, EYE BURNS, INFLAMED TONGUE, SPASMS, PAIN IN THE HEART REGION, LOSS OF APPETITE.

Medical Cond Aggravated by Ex

posure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:EYES: WASH IMMEDIATELY WITH WATER OR NORMAL SALINE, FOR 15-20 MINUTES UNTIL PH IS NORMAL. SEE DOCTOR QUICKLY. SKIN: WASH WITH SOAP AND WATER. REMOVE SOILED CLOTHES. GET MEDICAL ADVICE. INHALE: REMOVE TO FRESH AIR. IF BREATHING STOPS, GIVE CPR. SEEE DOCTOR IMMEDIATELY. INGEST: DO NOT USE GASTRIC LAVAGE OR EMISIS. DILUTE BY DRINKING LARGE AMOUNTS OF WATER OR MILK. GET IMMEDIATE MEDICAL ATTENTION.

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

Flash Point:18.9F,-7.3C

Extinguishing Media:DRY CHEMICAL, CARBON DIOXIDE, HALON, WATER SPRAY OR ALCOHOL FOAM. LARGER FIRES, USE WATER SPARY, FOG OR STANDARD FOAM.

Fire Fighting Procedures:MOVE CONTAINERS FROM FIRE AREA IF POSSIBLE.

DIKE FIRE CONTROL WATER. DO NOT SCATTER MATERIAL. COOL FIRE EXPOSED CONTAINERS WITH WATER FROM SIDE. KEEP UPWIND.

Unusual Fire/Explosion Hazar

d:NEGLIGIBLE FIRE HAZARD WHEN EXPOSED TO
HEAT OR FLAME. AVOID BREATHING POISONOUS & CORROSIVE VAPORS.
EVACUATE TO A RADIUS OF 2500 FEET FOR LEAKS.

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

Spill Release Procedures:DO NOT TOUCH SPILLED MATERIAL. STOP LEAK. USE
WATER SPRAY TO REDUCE VAPORS. TAKE UP WITH SAND OR OTHER ABSORBENT
MATERIAL AND PLACE INTO CONTAINER FOR LATER DISPOSAL.

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

Handl

ing and Storage Precautions:PROTECT AGAINST PHYSICAL DAMAGE. STORE
IN COOL, DRY AREA, OUT OF DIRECT SUNLIGHT. SEPERATE FROM
COMBUSTIBLES, ORGANICS OR OXIDIZING MATERIALS.

Other Precautions:STORE ABOVE 20F TO PREVENT FREEZING BUT AVOID HEATING
ABOVE ATMOSPHERIC TEMPERATURES AS VAPOR PRESSURE INCREASE COULD
RUPTURE CONTAINER.

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

Respiratory Protection:THE SPECIFIC RESPIRATOR SELECTED MUST BE BASED
ON THE CONTAMI
NATION LEVELS FOUND IN THE WORK PLACE, MUST NOT
EXCEED THE WORKING LIMITS OF THE RESPIRATOR AND BE JOINTLY APPROVED
BY NIOSH/MSHA.

Ventilation:PROVIDE LOCAL EXHAUST OR PROCESS ENCLOSURE VENTILATION TO
MEET THE PUBLISHED EXPOSURE LIMITS.

Protective Gloves:WEAR APPROPRIATE PROTECTIVE GLOVES.

Eye Protection:SPLASH-PROOF OR DUST-RESISTANT GOGGLES.

Other Protective Equipment:EMPLOYEES MUST WEAR APPROPRIATE PROTECTIVE
(IMPERVIOUS) CLOTHING AND EQUIPMENT TO PREVENT SKIN CONTACT WITH
S
UBSTANCE.

Work Hygienic Practices:EMPLOYER SHOULD PROVIDE EYE WASH STATION &
SAFETY SHOWER WITHIN THE IMMEDIATE WORK AREA FOR EMERGENCY USE.

Supplemental Safety and Health

FOR FIRE FIGHTERS AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH
CONDITIONS: USE A SELF CONTAINED BREATHING APPARATUS WITH FULL
FACEPIECE OPERATED IN PRESSURE DEMAND OR OTHER POSITIVE PRESSURE
MODE .

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

HCC:D2

Boiling Pt:B.P. Text:138F,59C

M

elt/Freeze Pt:M.P/F.P Text:19.0F,-7.2C

Vapor Pres:175 MMHG

Vapor Density:5.5

Spec Gravity:3.11

Solubility in Water:3.5%

Appearance and Odor:HEAVY RED-BROWN LIQUID WITH PUNGENT ODOR.

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

Stability Indicator/Materials to Avoid:YES

AL POWDER, FLUORINE, ACETYLENE, ANTIMONY, COPPER HYDRIDE, METAL, OZONE,
SILANE, DIETHYL ETHER, CALCIUM NITRIDE, METHANOL

Stability Condition to Avoid:MAY BURN BUT DOES NOT IGNITE READILY. MAY
IGNIT

E COMBUSTIBLES (WOOD, PAPER, OIL, ETC.)

Hazardous Decomposition Products:BROMINE UNDERGOES VIOLENT
POLYMERIZATION IN REACTION WITH ACRYLONITRILE.

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

Waste Disposal Methods:DISPOSAL MUST BE MADE IN ACCORDANCE WITH
STANDARD APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 40 CFR 262.

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