

FISHER SCIENTIFIC -- METHYL ETHYL KETONE, M208 -- 6810-00-975-1530

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

Product ID:METHYL ETHYL KETONE, M208

MSDS Date:03/11/1994

FSC:6810

NIIN:00-975-1530

MSDS Number: CDPXZ

=== Responsible Party ===

Company Name:FISHER SCIENTIFIC

Address:1 REAGENT LANE

City:FAIR LAWN

State:NJ

ZIP:07410

Country:US

Info Phone Num:201-796-7100

Emergency Phone Num:201-796-7100;800-424-9

300(CHEMTREC)

CAGE:1B464

=== Contractor Identification ===

Company Name:FISHER SCIENTIFIC CO. CHEMICAL MFG DIV

Address:1 REAGENT LANE

Box:City:FAIRLAWN

State:NJ

ZIP:07410-2802

Country:US

Phone:201-796-7100

CAGE:1B464

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

Ingred Name:2-BUTANONE; (METHYL ETHYL KETONE) (MEK) (SARA 313) (CERCLA)

CAS:78-93-3

RTECS #:EL6475000

Fraction by Wt: 100%

OSHA PEL:200 PPM

ACGIH TLV:200 PPM;300 STEL

EPA Rpt Qty:5000 LBS

DOT Rpt Qty:5000 LBS

ingred Name:SUPDAT:FOR 1/2 MILE IN ALL DIRECTIONS IF TANK, RAIL
CAR/TANK TRUCK IS INVOLVED IN FIRE. EXTING ONLY IF FLOW CAN (ING 3)
RTECS #:9999999ZZ

Ingred Name:ING 2:BE STOPPED; USE WATER IN FLOODING AMTS AS FOG, SOLID
STREAMS MAY NOT BE EFTIVE. COOL CNTNRS W/FLOODING QTYS(ING 4)
RTECS #:9999999ZZ

Ingred Name:ING 3:OF WATER. APPLY FROM AS FAR A DISTANCE AS POSSIBLE.
AVOID BREATHING VAPORS, KEEP UPWIND. WATER MAY BE INEFFECTIVE.
RTECS #:9999999ZZ

Ingred Name:EFTS OF OVEREXP:100,00
0 PPM:NARC & DEATH W/IN 45-55 MINS.
ANIMALS THAT DIED:EMPHYSEMA, SLIGHT CONGESTION OF (ING 6)
RTECS #:9999999ZZ

Ingred Name:ING 5:SYSTEMIC ORGS, ESP LUNGS. SKIN:DERM, EXTREME
THICKENING OF FINGERNAILS W/PERM DESTRUCT OF NAIL BEDS. SENSIT(ING
7)
RTECS #:9999999ZZ

Ingred Name:ING 6:DID NOT OCCUR IN MAN. RABBIT:LETHAL DOSE PRDCD
ERYTHEMA, EDEMA, NECROSIS. LIVER, INTEST CONGESTION. EYES: (ING 8)
RTECS #:9999999ZZ

Ingred Name:ING 7:200 PPM:IRRIT; 3300 PPM:MOD IRRIT; 10,000 PPM:ALMO
ST
INTOLERABLE(GUINEA PIGS). SEV ANTERIOR UVEITIS, POSS (ING 9)
RTECS #:9999999ZZ

Ingred Name:ING 8:TRIGGERED BY TRAUMA. RABBITS:PAINFUL IRRIT &
TEMPORARY CORNEAL INJURY. GUINEA PIGS:TEMPORARY CORNEAL (ING 10)
RTECS #:9999999ZZ

Ingred Name:ING 9:OPACITY. INGEST:COMA, HYPERVENT, METABOLIC ACIDOSIS,
TACHYCARDIA, GI IRRIT W/ABDOM SPASMS, NAUS, VOMIT, (ING 11)
RTECS #:9999999ZZ

Ingred Name:ING 10:HDCH & DIZZ. ANIMALS:LETHAL DOSES:CONGESTED &
HEMORRHAGIC LUNGS & CONGEST OF LIVER, A

LIMENTARY TRACT & (ING 12)
RTECS #:9999999ZZ

Ingred Name:ING 11:PERITONEAL WALL. ASPIR MAY RSLT IN CHEM PNEUM.
CHRONIC:INHAL:1000-3000 PPM:OFFSPRING OF PREGNANT RATS: (ING 13)
RTECS #:9999999ZZ

Ingred Name:ING 12:SKELETAL, SOFT TISS, STERNEBRAL VARIATIONS. 3000
PPM:SLIGHT MATERNAL & FETAL TOX. UNCON, CONVLS, WEAK & (ING 14)
RTECS #:9999999ZZ

Ingred Name:ING 13:NUMB IN LEGS, LOSS OF MUSCLE STRENGTH, FATG,
BILATERAL PARESTHESIA; POTENTIATED NEUROTOX EFTS OF N-HEXANE(ING
15)
RTEC
S #:9999999ZZ

Ingred Name:ING 14:IN GLUE-SNIFFERS & METHYL N-BUTYL KETONE IN WORKERS.
SKIN:DEFAT PRDCG DRY, SCALY, FISSURED DERM. ABSORP:(ING 16)
RTECS #:9999999ZZ

Ingred Name:ING 15:CONTRIBUTED TO TOX EFTS DETAILED IN CHRONIC INHAL.
EYE:CONJ. INGEST:ANIMALS:CLINICAL NEUROPATHY. ADDNL (ING 17)
RTECS #:9999999ZZ

Ingred Name:ING 16:DATA:MAY ENHANCE NEUROTOX EFTS OF N-HEXANE/METHYL
N-BUTYL KETONE & PREDISPOSE LIVER TO INJURY FROM (ING 18)
RTECS #:9999999ZZ

Ingred Name:ING 17:HEPATOX
INS INCL CARBON TETRACHLORIDE & CHLOROFORM &
POTENTIATE NEPHROTOX OF CHLOROFORM. INTERACTIONS W/ (ING 19)
RTECS #:9999999ZZ

Ingred Name:ING 18:ALCOHOL MAY OCCUR. INCR RISK OF LEUKEMIA FOR
CHILDREN WHOSE FATHERS HAD OCCUP EXPOS TO PROD AFTER BIRTH (ING 20)
RTECS #:9999999ZZ

Ingred Name:ING 19:OF CHILD. TARGET EFFECTS:CENTRAL NERVOUS SYSTEM
DEPRESSANT.
RTECS #:9999999ZZ

Ingred Name:OTHER PREC:CNTNRS WHICH MEET BONDING & GROUNDING GUIDELINES
SPECIFIED IN NFPA 77-1983 - REC PRACTI

CE ON STATIC ELEC.
RTECS #:9999999ZZ

Ingred Name:SPILL PROC:IN HAZ AREA. KEEP UNNEC PEOPLE AWAY; ISOLATE HAZ
AREA & DENY ENTRY. RQ:5000 LBS. SARA REQS THAT RELS (ING 23)
RTECS #:9999999ZZ

Ingred Name:ING 22:EQUAL TO/GREATER THAN RQ FOR THIS SUBSTANCE BE IMMEDIATELY
REPORTED TO LOCAL EMERGENCY PLANNING COMMITTEE & STATE EMERGENCY (ING 24)
RTECS #:9999999ZZ

Ingred Name:ING 23:RESPONSE COMMISSION (40 CFR 355.40). IF RELS OF THIS
SUBSTANCE IS REPORTABLE UNDER CERCLA SECTION 103, (ING 25)
RTECS #:9999999
ZZ

Ingred Name:ING 24:NRC MUST BE NOTIFIED IMMEDIATELY AT (800)424-8802 OR
(202)426-2675 IN METROPOLITAN WASHINGTON, D.C. AREA(40 CFR 302.6).
RTECS #:9999999ZZ

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

LD50 LC50 Mixture:LD50:(ORAL,RAT) 2737 MG/KG.
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:IRRIT/NARC. ACUTE:INHAL:100-200
PPM:MILD NOSE & THROAT IRRIT; 90-270 PPM:SHORTENED TIME ESTS IN MEN
& INCREASED VARIATION IN TIME EST TESTS IN WOMEN; 300-500 PPM:THROAT
IRRIT, HDCH, VOMIT, NAUSEA; 3300 PPM:MILD IRRIT; 10,000
PPM:INTOLERABLE IRRIT OF NOSE. DYSCLTY BRTHG, COUGH, SHORTNESS OF
BREATH, CNS DEPRESSION (EFFECTS OF OVEREXPOSURE)
Explanation of Carcinogenicity:NOT RELEVANT
Effects of Overexposure:HEALTH HAZ:W/DIZZ, DROWSY, WEAK, LOSS OF
CONSCIOUSNESS, POSSIBLE DEATH; RETROBULBAR NEURITIS-HDCH, MILD VERTIGO,
DIMINISHED VISION, MILD RESP SYMPS & CONJ IRRIT; OPTIC NERVE
TOX
RELATED TO METABOLISM. GUINEA PIGS:10,000 PPM: IRRIT RAPIDLY &
NARC AFTER 240-280 MINS; 33,000 PPM:SYMPS SOONER & DEATH IN 200-260
MINS; (ING 5)
Medical Condition Aggravated by Exposure:PERSONS W/HISTORY OF CHRONIC SKIN
OR RESPIRATORY DISEASE, OR PERIPHERAL NEUROPATHY ARE AT INCREASED
RISK FROM EXPOSURE.

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

First Aid:INGEST:CALL MD IMMEDIATELY. INHAL:REMOVE TO FRESH AIR. SUPPORT
BREATHING (GIVE O₂/ARTF RESP)

) . EYES:IMMEDIATELY FLUSH W/POTABLE WATER FOR A MINIMUM OF 15 MINUTES. SEEK ASSISTANCE FROM MD (FP N). SKIN:FLUSH W/COPIOUS AMOUNTS OF WATER. CALL MD . ANTIDOTE:NO SPECIFIC ANTIDOTE. TREAT SYMPTOMATICALLY & SUPPORTIVELY. FOR MORE SPECIFIC INFO REGARDING FIRST AID TREATMENT CONT NEHC .

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

Flash Point Method:CC
Flash Point:16.0F,-8.9C
Lower Limits:1.4% @ 200F
Upper Limits:11.4% @ 200F
Extinguishing Media:DRY CHEMICAL, CARBON DIOXIDE, WATER SPRAY/ALCOHOL-RESIST FOAM. FOR LGR FIRES, USE WATER SPRAY, FOG/ALCOHOL-RESIST FOAM.
Fire Fighting Procedures:USE NIOSH APPRVD SCBA & FULL PROT EQUIP. MOVE CNTNR FROM FIRE AREA IF YOU CAN DO IT W/OUT RISK. APPLY COOLING WATER TO SIDES OF CNTNRS THAT ARE (SUPDAT)
Unusual Fire/Explosion Hazard:DANGEROUS FIRE HAZ WHEN EXPOS TO HEAT/FLAME. VAPS ARE HVR/AIR & MAY TRAVEL CONSIDERABLE DIST TO SOURCE OF IGNIT & FLASH BACK. VAP-AIR MIXTS ARE EXPLO >16F(-9C).

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

Spill Release Procedures:SHUT OFF IGNIT SOURCES. STOP LEAK IF YOU CAN DO IT W/OUT RISK. USE WATER SPRAY TO REDUCE VAPS. SM SPILLS:TAKE UP W/SAND/OTHER ABSORB MATL & PLACE INTO CNTNRS FOR LATER DISP. LG SPILLS:DIKE FAR AHEAD F OR LATER DISP. NO SMOKING, FLAMES/FLARES (ING 22)
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and
Storage Precautions:OBSERVE ALL FED, STATE & LOC REGS WHEN STORING THIS SUBSTANCE. FOR ASSISTANCE, CONT DISTRICT DIRECTOR OF EPA. STORE I/A/W 29 CFR 1910.106. FLAMM LIQ.
Other Precautions:STORE AWAY FROM INCOMPAT MATLS. DO NOT OVERHEAT CNTNRS; CNTNRS MAY VIOLENTLY RUPTURE & TRAVEL CONSIDERABLE DIST IN HEAT OF FIRE. SUBSTANCES W/LOW ELECTROCONDUCTIVITY, WHICH MAY BE IGNITED BY ELECTROSTATIC SPKS, SHOULD BE STORED IN (ING 21)

===== Exposure Controls/Personal Protect

ion =====

Respiratory Protection:NIOSH APPROVED RESPIRATOR APPROPRIATE FOR EXPOSURE OF CONCERN . FOR MORE SPECIFIC INFORMATION CONTACT NEHC .

Ventilation:PROVIDE LOCAL EXHAUST OR GENERAL DILUTION VENTILATION TO MEET PELs. VENTILATION EQUIPMENT MUST BE EXPLOSION-PROOF.

Protective Gloves:IMPERVIOUS GLOVES .

Eye Protection:ANSI APPROVED CHEM WORKERS GOGGLES .

Other Protective Equipment:ANSI APPROVED EYE WASH FOUNTAIN & DELUGE SHOWER . WEAR APPROPRIATE PROTECTIVE (IMPERVIOUS) CLO

THING &

EQUIPMENT.

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

FIRE FIGHT PROC:EXPOS TO FLAMES UNTIL WELL AFTER FIRE IS OUT. STAY AWAY FROM ENDS OF TANKS. MASSIVE FIRE IN CARGO AREA:USE UNMANNED HOSE HOLDER/MONITOR NOZZ; IF IMPOSS, W/DRAW FROM AREA & LET FIRE BUR N. W/DRAW IMMED IN CASE OF RISING SOUND FROM VENTING SFTY DEVICE/ANY DISCOLORATION OF TANK DUE TO FIRE. ISOLATE (ING 2)

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

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Boiling Pt:B.P. Text:176F,80C

Melt/Freeze Pt:M.P/F.P Text:-123F,-86C

Vapor Pres:100 @ 25C

Vapor Density:2.5

Spec Gravity:0.8054

Evaporation Rate & Reference:2.7 (ETHER=1)

Solubility in Water:27.5%

Appearance and Odor:COLORLESS LIQUID W/ACETONE-LIKE ODOR.

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

Stability Indicator/Materials to Avoid:YES

EXPLOS, STRONG OXIDIZERS, PEROXIDES, PLASTICS, RESINS & RUBBER. FOR A COMPLETE LIST OF MATLS TO AVOID CONTACT NEHC .

Stability Condition to Avoid:AVOID CONTACT W/HEAT, SPKS, FLAMES/OTHER

SOURCES OF IGNIT. VAPORS MAY BE EXPLO & POIS; DO NOT ALLOW UNNECESSARY PERSONS IN AREA.

Hazardous Decomposition Products:THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE TOXIC OXIDES OF CARBON.

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

Waste Disposal Methods:OBSERVE ALL FED, STATE & LOCAL REGS WHEN DISPOSAL OF THIS SUBSTANCE. FOR ASSISTANCE, CONTACT DISTRICT DIRECTOR OF EPA. DISPOSAL MUST BE IN ACCORDANCE WITH STDS

APPLIC TO GENERATORS OF HAZ WASTE, 40 CFR

262. EPA HAZ WASTE #U 159 & EPA TOX CHARACT:EPA HAZ WASTE #D035.

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