

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

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Product Identification  
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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;800-42

4-9300(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

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Composition/Information on Ingredients  
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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

Incred 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

Incred 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

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

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

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

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

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

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

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

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

, ALIMENTARY 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)  
R  
TECS #: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:HEPA  
TOXINS 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 PRA

CTICE 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 RELEASED OF THIS  
SUBSTANCE IS REPORTABLE UNDER CERCLA SECTION 103, (ING 25)  
RTECS #:9999  
999ZZ

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. DYSFUNCTIONAL BREATHING, COUGH, SHORTNESS OF  
BREATH, CNS DEPRESSION (EFFECTS OF OVEREXPOSURE)  
Explanation of Carcinogenicity:NOT RELEVANT  
Effects of Overexposure:HEALTH HAZARD:WEAK, DROWSY, LOSS OF  
CONSCIOUSNESS, POSSIBLE DEATH; RETROBULBAR NEURITIS-HDCH, MILD VERTIGO,  
DIMINISHED VISION, MILD RESPIRATORY SYMPTOMS & CONJUNCTIVAL IRRITATION; OPTIC NERVE  
TOXICITY  
RELATED TO METABOLISM. GUINEA PIGS:10,000 PPM: IRRITATED RAPIDLY &  
NARCOTIC AFTER 240-280 MINS; 33,000 PPM:SYMPTOMS SOONER & DEATH IN 200-260  
MINS; (ING 5)  
Medical Conditions Aggravated by Exposure:PERSONS WITH HISTORY OF CHRONIC SKIN  
OR RESPIRATORY DISEASE, OR PERIPHERAL NEUROPATHY ARE AT INCREASED  
RISK FROM EXPOSURE.

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

First Aid:INGESTION:CALL MEDICAL IMMEDIATELY. INHALATION:REMOVE TO FRESH AIR. SUPPORT  
BREATHING (GIVE O<sub>2</sub>/ARTIFICIAL)

ESP) . 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 C

HEMICAL, 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 >16 F(-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 Prot

ection =====

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 GOGGS .

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

CLOTHING & 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 CONT W/HEAT, SPKS, FLAMES/OTHER

SOURCES OF IGNIT. VAPS MAY BE EXPLO & POIS; DO NOT ALLOW UNNEC PERS IN AREA.

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

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

Waste Disposal Methods:OBSERVE ALL FED, STATE & LOC REGS WHEN DISP OF THIS SUBSTANCE. FOR ASSISTANCE, CONTACT DISTRICT DIRECTOR OF EPA. DISP MUST BE I/A/W S

TDS 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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