

FISHER SCIENTIFIC CO. CHEMICAL MFG DIV -- METHYL ETHYL KETONE -- 6810-00-281-2762

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

Product ID:METHYL ETHYL KETONE

MSDS Date:04/17/2001

FSC:6810

NIIN:00-281-2762

Status Code:A

MSDS Number: CLCGY

=== Responsible Party ===

Company Name:FISHER SCIENTIFIC CO. CHEMICAL MFG DIV

Address:1 REAGENT LANE

City:FAIR LAWN

State:NJ

ZIP:07410-2802

Country:US

Info Phone Num:201-796-7100

Emergency Phone Num:201-796-7100

Resp. Party Other MSDS

Num.:ACC# 14460

Chemtrec Ind/Phone:(800)424-9300

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:METHYL ETHYL KETONE

CAS:78-93-3

RTECS #:EL6475000

> Wt:99.

OSHA PEL:590 MG/M3;200 PPM

ACGIH TLV:200 PPM

ACGIH STEL:300 PPM

EPA Rpt Qty:5000 LBS

DOT Rpt Qty:5000

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

LD50 LC50 Mixture:2737 MG/KG  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:CHRONIC: CHRONIC INHALATION MAY CAUSE EFFECTS SIMILAR TO THOSE OF ACUTE INHALATION. PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE DEFATTING AND DERMATITIS. ACUTE: EYE: CAUSES EYE IRRITATION. MAY RESULT IN CORNEAL INJURY. SKIN: MAY BE ABSORBED THROUGH THE SKIN IN HARMFUL AMOUNTS. PROLONGED AND/OR REPEATED CONTACT MAY CAUSE IRRITATION AND/OR DERMATITIS. INGESTION: MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT. MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION, CHARACTERIZED BY EXCITEMENT, FOLLOWED BY HEADACHE, DIZZINESS, DROWSINESS, AND NAUSEA.  
Explanation of Carcinogenicity:CAS# 78-93-3: NOT LISTED AS A CARCINOGEN BY ACGIH, IARC, NIOSH, NTP, OSHA, OR CA PROP 65.  
Effects of Overexposure:EYE:CAUSES EYE IRRITATION. MAY RESULT IN CORNEAL INJURY. SKIN: MAY BE ABSORBED THROUGH THE SKIN IN HARMFUL AMOUNTS. PROLONGED AND/OR REPEATED CONTACT MAY CAUSE IRRITATION AND/OR DERMATITIS. INGESTION: MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT. MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION, CHARACTERIZED BY EXCITEMENT, FOLLOWED BY HEADACHE, DIZZINESS, DROWSINESS, AND NAUSEA. ADVANCED STAGES MAY CAUSE COLLAPSE, UNCONSCIOUSNESS, COMA AND POSSIBLE DEATH DUE TO RESPIRATORY FAILURE.  
Medical Cond Aggravated by Exposure:NO DATA PROVIDED BY MANUFACTURER

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

First Aid:EYES: FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER LIDS. GET MEDICAL AID IMMEDIATELY. DO NOT ALLOW VICTIM TO RUB OR KEEP EYES CLOSED. SKIN: GET MEDICAL AID. RINSE AREA WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. INGESTION: IF VICTIM IS CONSCIOUS AND ALERT, GIVE 2-4 CUPFULS OF MILK OR WATER. GET MEDICAL AID IMMEDIATELY. INHALATION: GET MEDICAL AID IMMEDIATELY. REMOVE FROM EXPOSURE TO FRESH AIR IMMEDIATELY. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

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

Flash Point:=-7.C, 19.4F  
Autoignition Temp:=-404.C, 759.2F  
Lower Limits:1.80  
Upper Limits:11.50  
Extinguishing Media:FOR SMALL FIRES, USE DRY CHEMICAL, CARBON DIOXIDE, WATER SPRAY OR ALCOHOL-RESISTANT FOAM. FOR

LARGE FIRES, USE WATER

SPRAY, FOG, OR ALCOHOL-RESISTANT FOAM.

Fire Fighting Procedures:AS IN ANY FIRE, WEAR A SELF-CONTAINED BREATHING APPARATUS IN PRESSURE-DEMAND, MSHA/NIOSH (APPROVED OR EQUIVALENT), AND FULL PROTECTIVE GEAR. VAPORS CAN TRAVEL TO A SOURCE OF IGNITION AND FLASH BACK. F LAMMABLE LIQUID. CAN RELEASE VAPORS THAT FORM EXPLOSIVE MIXTURES AT TEMPERATURES ABOVE THE FLASHPOINT.

Unusual Fire/Explosion Hazard:MATERIAL IS LIGHTER THAN WATER AND A FIRE MAY BE SP

READ BY THE USE OF WATER. VAPORS ARE HEAVIER THAN AIR.

THEY CAN SPREAD ALONG THE GROUND AND COLLECT IN LOW OR CONFINED AREAS. MAY POLYMERIZE EXPLOSIV ELY WHEN INVOLVED IN A FIRE. CONTAINERS MAY EXPLODE WHEN HEATED.

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

Spill Release Procedures:ABSORB SIPIILL WITH INERT MATERIAL( E.G., DRY SAND OR EARTH), THEN PLACE INTO A CHEMICAL WASTE CONTAINER. CLEAN UP SPILLS IMMEDIATELY. USE A SPARK-PROOF TOOL. EYES: WEAR APPROPRIATE PROTECTIVE EYEGLAS SES OR CHEMICAL SAFETY GOGGLES AS DESCRIBED BY OSHA'S EYE AND FACE PROTECTIONS REGULATIONS IN 29 CFR 1910.133 OR EUROPEAN STANDARD EN166.

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

Handling and Storage Precautions:USE ONLY IN A WELL VENTILATED AREA. GROUND AND BOND CONTAINERS WHEN TRANSFERRING MATERIAL. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. EMPTY CONTAINERS RETAIN PRODUCT RESIDUE, (LIQUID AND/OR VAPOR), AND CAN BE DANGEROUS. KEEP CONTAINER TIGHTLY CLOSED. AVOID CONTACT WITH HEAT, SPARKS AND FLAME.

Other Precautions:AVOID INGESTION AND INHALATION. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE EMPTY CONTAINERS TO HEAT, SPARKS OR OPEN FLAMES. STORAGE: KEEP AWAY FROM SOURCES OF IGNITION. STORE IN A COOL, DRY, WELL-VENTILATED AREA AWAY FROM INCOMPATIBLE SUBSTANCES. FLAMMABLES-AREA.

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

Respi

Respiratory Protection:FOLLOW THE OSHA RESPIRATOR REGULATIONS FOUND  
29CFR 1910.134 OR EUROPEAN STANDARD EN 149. ALWAYS USE A NIOSH OR  
EUROPEAN STANDARD EN 149 APPROVED RESPIRATOR WHEN NECESSARY.  
Ventilation:USE ADEQUATE GENERAL OR LOCAL EXHAUST VENTILATION TO KEEP  
AIRBORNE CONCENTRATIONS BELOW THE PERMISSABLE EXPOSURE LIMITS.  
Protective Gloves:WEAR APPROPRIATE PROTECTIVE GLOVES TO PREVENT SKIN  
EXPOSURE.  
Eye Protection:PROTECTIVE EYEGLASSES OR CHEMICAL SAFETY GOGGLES  
Other Protective Equipment:WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT  
SKIN EXPOSURE. FACILITIES STORING OR UTILIZING THIS MATERIAL SHOULD  
BE EQUIPPED WITH AN EYEWASH FACILITY AND A SAFETY SHOWER.  
Work Hygienic Practices:AVOID CONTACT WITH EYES, SKIN AND CLOTHING.  
Supplemental Safety and Health  
NO DATA PROVIDED BY MANUFACTURER

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

HCC:F2  
Boiling Pt:=80.C, 176.F  
B.P. Text:760.00MM HG  
Melt/Freeze Pt:=-87.C, -124.6F  
Decomp Temp:Decomp Text:N  
NO INFORMATION AVAILABLE  
Vapor Pres:71.2 MM HG  
Vapor Density:2.5(AIR=1)  
Spec Gravity:.8050 G/CM3  
Viscosity:0.42 MPAS 15C  
Evaporation Rate & Reference:2.7(ETHER=1)  
Solubility in Water:MISCIBLE WITH OILS  
Appearance and Odor:LIQUID NO INFORMATION AVAILABLE. SWEETISH ODOR -  
ALCOHOL-LIKE

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

Stability Indicator/Materials to Avoid:YES  
AMINES, AMMONIA, CAUSTICS, CHLOROFORM + ALKALI, CHLOROSULFONIC ACID,  
COPPER, HYDROGEN PEROXIDE + NITRIC ACID, INORGANIC ACIDS,  
ISOCYANATES, POTASSIUM-T-BUTOXIDE, 2-PROPANOL, PYRIDINES, STRONG  
OXIDIZERS, AND FUMING SULFURIC  
Stability Condition to Avoid:INCOMPATIBLE MATERIALS, IGNITION SOURCES,  
EXCESS HEAT.  
Hazardous Decomposition Products:CARBON MONOXIDE, CARBON DIOXIDE.  
Conditions to Avoid Polymerization:HAS NOT BEEN REPORTED.

===== Toxicological Information =====

Toxicological Information:LD50/LC50: INHALATION, MOUSE: LC50=40  
GM/M3/2H; IN

HALATION, RAT: LC50=23500 MG/M3/8H; ORAL, MOUSE:  
LD50=4050 MG/KG; ORAL, RAT: LD50=2737 MG/KG; SKIN, RABBIT:  
LD50=6480 MG/KG. EPIDEMIOLOGY: NO INFORMATION AVAILABLE.  
TERATOGENICITY: EMBRYO OR FETUS: FETOTOXICITY, IHL-RAT TCLO=100  
PPM. SPECIFIC DEVELOPMENTAL ABNORMALITIES: CRANIOFACIAL AND  
UROGENITAL, IHL-RAT TCLO=3000 PPM/7H; MUSCULOSKELETAL, IHL-RA T  
TCLO=1000 PPM. REPRODUCTIVE EFFECTS: NO INFORMATION AVAILABLE.  
NEUROTOXICITY: NO INFORMATION AVAILABLE. MUTAGENICITY:  
NO  
INFORMATION AVAILABLE. MUTAGENICITY: SEX CHROMOSOME  
LOSS/NON-DYSJUNCTION: S. CEREVISIAE 33800 PPM.

===== Ecological Information =====

Ecological:ECOTOXICITY: FATHEAD MINNOW LC50=3220 MG/L/96H BLUEGILL  
TLM=5640 TO 1690 MG/L/24 TO 96H. ENVIRONMENTAL FATE: SUBSTANCE  
EVAPORATES IN WATER WITH T1/2=3D (RIVERS) TO 12D (LAKES). SUBSTANCE  
NOT EXPECTED TO BIOCONCENTRATE IN AQUATIC ORGANISMS.  
PHYSICAL/CHEMICAL: SUBSTANCE PHOTODEGRADES IN AIR  
WITH TQ/2=2.3  
DAYS. OTHER: NO INFORMATION AVAILABLE.

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

Waste Disposal Methods:DISPOSE OF IN A MANNER CONSISTENT WITH FEDERAL,  
STATE, AND LOCAL REGULATIONS. RCRA P SERIES WASTES: NONE OF THE  
COMPONENTS ARE ON THIS LIST. RCRA U SERIES WASTES: CAS#78-93-3:  
WASTE U159(IGNITABLE WAS TE; TOXIC WASTE).

===== MSDS Transport Information =====

Transport Information:US DOT: SHIPPING NAME: METHYL ETHYL KETONE.  
HAZARD CLASS: 3. UN NUMBER: UN1193. PACKING GROUP II. CANADA TDG:  
SHIPPING NAME: METHYL ETHYL KETONE. HAZARD CLASS: 3. UN NUMBER:  
UN1193. PACKING GROUP II. ADDITIONAL INFO: FLASHPOINT: -9C.

===== Regulatory Information =====

SARA Title III Information:SECTION 302: FINAL RQ=5000 LBS (2270 KG).  
SECTION 302 (TPQ): NONE OF THE CHEMICALS IN THIS PRODUCT HAVE A  
TPQ. SARA CODES: ACUTE, FLAMMABLE. SECTION 313: THIS MATERIAL  
C

CONTAINS METHYL ETHYL KETONE (CAS# 78-93-3, 99%), WHICH IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF SARA TITLE III AND 40 CFR PART 373.

Federal Regulatory Information: CLEAN AIR ACT: CAS# 78-93-3 IS LISTED AS A HAZARDOUS AIR POLLUTANT (HAP). THIS MATERIAL DOES NOT CONTAIN ANY CLASS 1 OR CLASS 2 OZONE DEPLETORS. CLEAN WATER ACT: NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS HAZARDOUS SUBSTANCES, PRIORITY POLLUTANTS OR TOXIC POLLUTANTS UNDER THE CWA. O

SHA: NONE

OF THE CHEMICALS IN THIS PRODUCT ARE CONSIDERED HIGHLY HAZARDOUS BY OSHA. TSCA: CAS# 78-93-3 IS LISTED ON THE TSCA INVENTORY. HEALTH & SAFETY REPORTING LIST: CAS# 78-93-3: EFFECTIVE OCTOBER 4, 1982 ; SUNSET DATE: OCTOBER 4, 1992. (SEE OTHER INFORMATION FOR MORE REGULATORY INFORMATION.)

State Regulatory Information: CAS# 78-93-3 CAN BE FOUND ON THE FOLLOWING STATE RIGHT TO KNOW LISTS: CALIFORNIA, NEW JERSEY, FLORIDA, PENNSYLVANIA, MINNESOTA, MASSACHUSETTS. CA

ALIFORNIA NO SIGNIFICANT

RISK LEVEL: NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED.

===== Other Information =====

Disclaimer (provided with this information by the compiling agencies):

This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing t

his

document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.