



MATERIAL SAFETY DATA SHEET

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P-MS

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CHEMICAL CODE: P-MS
PRODUCT NAME: MUTUAL SOLVENT (LIQUID)
MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE: SEPTEMBER 25, 2012



NFPA RATING:

HEALTH HAZARD: 2 FLAMMABILITY: 2 REACTIVITY: 0 OTHER:

0=INSIGNIFICANT 1=SLIGHT 2=MODERATE 3=HIGH 4=EXTREME

NOMINAL COMPOSITION:
ETHYLENE GLYCOL M-BUTYL-ETHER

CAS NUMBER
000111-76-2

SECTION 1 - PHYSICAL DATA

CHEMICAL NATURE:	SOLVENT	FORM:	LIQUID
COLOR:	COLORLESS - WHITE	ODOR:	MILD
VAP DENSITY (AIR=1):	4.10	% SOL. IN WATER:	SOLUBLE
PH:	NOT DETERMINED	S.P GRAVITY:	0.897@25/25
POUR PT.:	NOT DETERMINED	BOILING POINT:	340 DEG F, 171 DEG C
VAP. PRESSURE:	0.76 mmHg@20C, 0.88@25C	WT% VOLATILE:	100

SECTION 2 - FIRE AND EXPLOSION HAZARD DATA

CHARACTERISTIC: COMBUSTIBLE LIQUID

FLASH POINT: >150 DEG F, > 66 DEG C

METHOD USED: PENSKY-MARTENS CC

FLAMMABLE LIMITS (STP IN AIR) LFL: 1.1 %

UFL: 10.6 %

EXTINGUISHING MEDIA: WATER FOG, ALCOHOL FOAM, CO2, AND DRY CHEMICAL.

SPECIAL FIRE FIGHTING EQUIPMENT AND HAZARDS: WEAR PROTECTIVE FIRE FIGHTING CLOTHING AND AVOID BREATHING VAPORS.
USE SELF-CONTAINED BREATHING APPARATUS IN CLOSED AREAS. SLICK WHEN WET.



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SECTION 3 - REACTIVITY HAZARDS

STABILITY: STABLE UNDER NORMAL CONDITIONS.

INCOMPATIBILITY: OXIDIZING MATERIAL, AVOID EXTREME TEMPERATURES.

HAZARDOUS DECOMPOSITION: WHEN HEATED STRONGLY OR BURNED, OXIDES OF CARBON AND HARMFUL ORGANIC CHEMICAL FUMES ARE RELEASED.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

SECTION 4 - FIRST AID PROCEDURES

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. IF IRRITATION OR ADVERSE SYMPTOMS DEVELOP, SEEK MEDICAL ATTENTION.

SKIN CONTACT: IMMEDIATELY WASH WITH SOAP AND WATER FOR 15 MINUTES. SEE A DOCTOR AT ONCE. DESTROY CONTAMINATED SHOES. WASH CLOTHES THOROUGHLY BEFORE REUSING.

SWALLOWING: DO NOT INDUCE VOMITING WITHOUT MEDICAL ADVICE. IF CONSCIOUS, WASH OUT MOUTH & GIVE WATER TO DRINK. IF SYMPTOMS DEVELOP, SEEK MEDICAL ADVICE.

INHALATION: REMOVE TO FRESH AIR, TREAT SYMPTOMATICALLY. IF SYMPTOMS DEVELOP, SEEK MEDICAL ADVICE.

SECTION 5 - HANDLING PRECAUTIONS

PROTECTIVE EQUIPMENT CODE: Q3

VENTILATION: GENERAL VENTILATION IS RECOMMENDED. LOCAL EXHAUST VENTILATION MAY BE NECESSARY WHEN MISTS OR VAPORS ARE GENERATED.

RESPIRATORY PROTECTION: IF SIGNIFICANT MISTS, VAPORS OR AEROSOLS ARE GENERATED AN APPROVED RESPIRATOR IS RECOMMENDED. A SUITABLE FILTER MATERIAL DEPENDS ON THE AMOUNT AND TYPE OF CHEMICALS BEING HANDLED. IF RESPIRATORY PROTECTION IS REQUIRED, INSTITUTE A COMPLETE RESPIRATORY PROTECTION PROGRAM INCLUDING SELECTION, FIT TESTING, TRAINING, MAINTENANCE AND INSPECTION. IN EVENT OF EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS A POSITIVE PRESSURE, FULL-FACEPIECE SCBA SHOULD BE USED.

HAND PROTECTION: WHEN HANDLING THIS PRODUCT, THE USE OF CHEMICAL GLOVES IS RECOMMENDED. THE CHOICE OF WORK GLOVE DEPENDS ON WORK CONDITIONS AND WHAT CHEMICALS ARE HANDLED. PLEASE CONTACT THE PPE MANUFACTURER FOR ADVICE ON WHAT TYPE OF GLOVE MATERIAL MAY BE SUITABLE. GLOVES SHOULD BE REPLACED IMMEDIATELY IF SIGNS OF DEGRADATION ARE OBSERVED.

SKIN PROTECTION: CLEAN, BODY-COVERING CLOTHING AND IMPERVIOUS (RUBBER) GLOVES. FOR SPILLS AND EMERGENCIES, ALSO WEAR BOOTS AND SLICKER (RAIN) SUIT.

EYE PROTECTION: CHEMICAL GOGGLES REQUIRED AND AN EYE WASH IN WORK AREA.

EXPOSURE GUIDELINE(S): TLV IS 25 PPM (SKIN), STEL IS 75 PPM (SKIN) AND PEL IS 50 PPM (SKIN) FOR ACGIH AND OSHA.



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SECTION 6 - SPILL AND DISPOSAL PROCEDURE

CERCLA REPORTABLE QUANTITY: NOT ESTABLISHED

SPECIAL HANDLING: CONTAIN WITH DIKES. USE EXPLOSION PROOF EQUIPMENT TO RECOVER. REMOVE ALL SOURCES OF IGNITION. SOAK UP RESIDUAL ON INERT ABSORBENT (SAND). PUT IN STEEL OR PLASTIC DRUM APPROVED FOR FLAMMABLES.

DISPOSAL METHOD FOR:

PRODUCT: SHIP VIA PERMITTED WASTE HAULER TO PERMITTED HAZARDOUS WASTE DISPOSAL FACILITY FOR INCINERATION.

EPA HAZARDOUS WASTE NUMBER: NONE.

CONTAINER: LEAVE LABEL ON DRUM AND SELL TO APPROVED DRUM RECONDITIONER OR TRIPLE RINSE, CRUSH, AND SHIP TO SANITARY LANDFILL UNLESS PROHIBITED BY LOCAL REGULATIONS.

DEGRADABILITY: BIODEGRADABLE. BOD = 1.8 P/P; COD = 2.2 P/P.

FISH TOXICITY: LOW TOXICITY TO FISH. LC50 IS GREATER THAN 500 PPM.

ANIMAL TOXICITY: TOXIC TO MAMMALS.

SECTION 7 - TOXICOLOGY (ROUTES OF EXPOSURE)

PRINCIPAL HAZARD (E=EYE, S=SKIN, I=INHAL.): E, S

EYE CONTACT: SEVERE IRRITANT. CAUSES PAIN AND REDNESS. PROLONGED OR REPEATED CONTACT MAY CAUSE MILD BURN. VAPOR IRRITATING AT 300 PPM.

SKIN CONTACT: TOXIC IRRITANT. MAY CAUSE PAIN, REDNESS, DERMATITIS AND CAN CAUSE ILLNESS OR DEATH. LD50 (RABBITS) = 220 MG/KG.

SWALLOWING: HARMFUL IF SWALLOWED. LARGE AMOUNTS MAY CAUSE ILLNESS OR DEATH. LD50 (RATS) = 1,500 MG/KG. SOUR TASTE FOLLOWING BY BURNING SENSATION, THEN NUMBNESS OF TONGUE.

INHALATION: IRRITANT. MAY CAUSE PAIN AND COUGHING AT 200 PPM.

OTHER: MAY AFFECT LIVER AND KIDNEYS AND BLOOD.



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SECTION 8 - SPECIAL PRECAUTIONS AND ADDITIONAL INFORMATION

SPECIAL PRECAUTIONS: NONE.

PHYSICAL HAZARD: FIRE.

HANDLING AND STORAGE PRECAUTIONS: KEEP AWAY FROM HEAT, SPARKS AND FLAME. KEEP CONTAINER CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION. DO NOT CUT OR WELD ON CONTAINER.

PACKAGING INFORMATION: UNCOATED PHOSPHATIZED STEEL DRUM (DOT 17E); PLASTIC CAN FOR SHORT TERM STORAGE ONLY.

ADDITIONAL INFORMATION: NONE

THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICAL SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENT AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372: ETHYLENE GLYCOL N-BUTYL ETHER (100 PERCENT)

THE INFORMATION HEREIN IS BELIEVED TO BE ACCURATE AND IS PRESENTED IN GOOD FAITH; HOWEVER, NO WARRANTIES OR REPRESENTATIONS ARE MADE BY PETROCHEM, INC. REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION.



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SHIPPING INFORMATION

ID NUMBER (UN # OR NA #): 2369

FLASH PT. >150 DEG F, > 66 DEG C
BOILING PT. 340 F, 171 C

ICC TARIFF CLASSIFICATION: COMPOUND, GAS OR OIL WELL DRILLING

ICC ITEM NUMBER: 138640

ICC CLASS: 50 LTL 35 TL

DEPARTMENT OF TRANSPORTATION - DOT

DESCRIPTION: HAZARDOUS MATERIAL
HAZARD CLASS: COMBUSTIBLE LIQUID
SHIPPING NAME: FOR BULK SHIPMENTS SHIP AS: COMBUSTIBLE LIQUID, N.O.S., NA 1993
DOT LABEL: (NONE)
COMMENT: NOT REGULATED IN PACKAGES OF 110 GALLONS OR LESS.
DS TANK EX. #: DOT-E 3095
CERCLA RQ: NOT ESTABLISHED

US FOREIGN TRADE (HTS) SCHEDULE B# (EXPORT): 38244000 (ADDITIVE FOR CEMENT)

CANADIAN SHIPMENTS -

SHIPPING NAME:

SPECIAL PROVISION:

CLASSIFICATION:

ICAO CLASS:

PKG GROUP:

WATER SHIPMENT (IMO)

SHIPPING NAME: ETHYLENE GLYCOL MONOBUTYL ETHER
LABEL(S): HARMFUL, STOW AWAY FROM FOODSTUFFS.
CLASS: 6.1 PKG GROUP: III IMDG PAGE: 6136
MARPOL:

AIR SHIPMENTS (IATA)

SHIPPING NAME: ETHYLENE GLYCOL MONOBUTYL ETHER
LABEL(S): KEEP AWAY FROM FOOD.
CLASS: 6.1 SUB RISK: PKG GROUP: III
PASSENGER AIRCRAFT PKG. INSTR. 611 MAX. NET QTY. /PKG. 60L
CARGO AIRCRAFT ONLY PKG. INSTR 618 MAX. NET QTY. /PKG. 220L

EUROPEAN ECONOMIC COMMUNITY (EEC)

RISK PHRASES: /21/22/37 SAFETY PHRASES: 24/25/28(WS)
CLASSIFICATION (LABEL): XN
LABEL DESCRIPTION:
ADR CLASS: 6.1, 13C RID CLASS: TREM CARD: 61G07
HAZARD CLASSIFICATION:
COMMENT: S28 (W/S) =S28. WATER AND SOAP