

-1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER.....:

PREPARATION DATE.: 11/08/91
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EM SCIENCE
A DIVISION OF EM INDUSTRIES
P.O. BOX 70
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GIBBSTOWN, N.J. 08027

INFORMATION PHONE NUMBER.: 609-354-9200
HOURS: MON. TO FRI. 8:30-5
CHEMTREC EMERGENCY NUMBER: 800-424-9300
HOURS: 24 HRS A DAY

CATALOG NUMBER(S):

MX0475 MX0480 MX0483 MX0484 MX0485 MX0487 MX0488 MX0489 MX0490
AX1699M MX0475P MX0482 MX0485P MX0485S MX0488B MX0488P MX0475RI
MX0485J

CHEMICAL NAME.....: METHANOL
TRADE NAME.....: METHYL ALCOHOL, WOOD ALCOHOL
CHEMICAL FAMILY...: ALIPHATIC ALCOHOL
FORMULA.....: CH3OH

MOLECULAR WEIGHT.: 32.04

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS #	APPR %
METHANOL	67-56-1	100%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

FLAMMABLE LIQUID AND VAPOR.
VAPOR HARMFUL.
MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED.
CANNOT BE MADE NON-POISONOUS.
MAY CAUSE DAMAGE TO LUNGS AND CENTRAL NERVOUS SYSTEM.
ABSORPTION THROUGH SKIN HARMFUL.

APPEARANCE.....:

COLORLESS LIQUID, CHARACTERISTIC
ALCOHOLIC ODOR

POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

SYMPTOMS OF EXPOSURE:

TOXIC BY INGESTION AND INHALATION. CAN BE TOXIC BY SKIN ABSORPTION.
AFTER INGESTION OR INHALATION, INITIAL SYMPTOMS MAY BE ONLY THAT
OF MILD INTOXICATION, BUT MAY BECOME SEVERE AFTER 12 TO 18 HOURS.
AFFECTS CENTRAL NERVOUS SYSTEM, ESPECIALLY OPTIC NERVE.
MARKED IMPAIRMENT OF VISION AND ENLARGEMENT OF THE LIVER HAS BEEN
REPORTED WITH CHRONIC EXPOSURE.
CHRONIC EXPOSURE MAY ALSO CAUSE DAMAGE TO KIDNEYS AND CENTRAL
NERVOUS SYSTEM.
CAUSES DIZZINESS, NAUSEA, MUSCLE WEAKNESS, NARCOSIS,
RESPIRATORY FAILURE.
INGESTION CAN PRODUCE BLINDNESS (100 ML CAN BE FATAL).
PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE IRRITATION.
FETAL DEVELOPMENT ABNORMALITIES AND EFFECTS ON EMBRYO OR FETUS
HAVE BEEN REPORTED FROM PROLONGED EXPOSURE TO METHYL ALCOHOL IN
LABORATORY TESTS INVOLVING PREGNANT RATS.

MEDICAL COND. AGGRAVATED BY EXPOSURE:

SKIN CONDITIONS, EYE PROBLEMS, OR IMPAIRED LIVER OR KIDNEY FUNCTION.

ROUTES OF ENTRY.....:

INHALATION, INGESTION OR SKIN CONTACT.

CARCINOGENICITY.....:

THE MATERIAL IS NOT LISTED (IARC, NTP, OSHA) AS CANCER CAUSING
AGENT.

4. FIRST AID MEASURES

EMERGENCY FIRST AID:

GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.

SKIN: WASH THOROUGHLY WITH SOAP AND WATER.

EYES: IMMEDIATELY FLUSH THOROUGHLY WITH WATER FOR AT LEAST 15
MINUTES.

INHALATION: REMOVE TO FRESH AIR; GIVE ARTIFICIAL RESPIRATION IF
BREATHING HAS STOPPED.

INGESTION: GET IMMEDIATE MEDICAL ATTENTION. IF MEDICAL ATTENTION IS NOT
IMMEDIATELY AVAILABLE, INDUCE VOMITING. DO NOT INDUCE VOMITING IF
PATIENT IS UNCONSCIOUS.

REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

5. FIRE FIGHTING MEASURES

FLASH POINT (F).....: 52F (TCC)

FLAMMABLE LIMITS LEL (%): 6.7

FLAMMABLE LIMITS UEL (%): 36.5

EXTINGUISHING MEDIA.....:

DRY CHEMICAL, "ALCOHOL" FOAM, CO2, WATER MIST.

FIRE FIGHTING PROCEDURES.:

WEAR SELF-CONTAINED BREATHING APPARATUS.

FIRE & EXPLOSION HAZARDS.:

DANGEROUS FIRE AND EXPLOSIVE HAZARD.

CLOSED CONTAINERS MAY EXPLODE UPON HEATING.

VAPOR CAN TRAVEL DISTANCES TO IGNITION SOURCE AND FLASH BACK.

HOT ORGANIC CHEMICAL VAPORS OR MISTS ARE SUSCEPTIBLE TO SUDDEN SPONTANEOUS COMBUSTION WHEN MIXED WITH AIR. IGNITION MAY OCCUR AT TEMPERATURES BELOW PUBLISHED AUTOIGNITION OR IGNITION TEMPERATURES. IGNITION TEMPERATURES DECREASE WITH INCREASING VAPOR VOLUME AND VAPOR/AIR CONTACT TIME AND ARE INFLUENCED BY PRESSURE CHANGES. IGNITION MAY OCCUR AT TYPICAL ELEVATED TEMPERATURE PROCESS CONDITIONS, ESPECIALLY IN PROCESS OPERATING UNDER VACUUM IF SUBJECTED TO SUDDEN INGRESS OF AIR, OR OUTSIDE PROCESS EQUIPMENT OPERATING UNDER ELEVATED PRESSURE IF SUDDEN ESCAPE OF VAPORS OR MISTS TO THE ATMOSPHERE OCCURS.

6. ACCIDENTAL RELEASE MEASURES

SPILL RESPONSE:

EVACUATE THE AREA OF ALL UNNECESSARY PERSONNEL.

WEAR SUITABLE PROTECTIVE EQUIPMENT LISTED UNDER EXPOSURE / PERSONAL PROTECTION.

ELIMINATE ANY IGNITION SOURCES UNTIL THE AREA IS DETERMINED TO BE FREE FROM EXPLOSION OR FIRE HAZARDS.

CONTAIN THE RELEASE AND ELIMINATE ITS SOURCE, IF THIS CAN BE DONE WITHOUT RISK.

TAKE UP AND CONTAINERIZE FOR PROPER DISPOSAL AS DESCRIBED UNDER DISPOSAL.

COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS ON REPORTING RELEASES. REFER TO REGULATORY INFORMATION FOR REPORTABLE QUANTITY AND OTHER REGULATORY DATA.

EM SCIENCE RECOMMENDS SPILL-X ABSORBENT AGENTS FOR VARIOUS TYPES OF SPILLS. ADDITIONAL INFORMATION ON THE SPILL-X PRODUCTS CAN BE PROVIDED THROUGH THE EM SCIENCE TECHNICAL SERVICE DEPARTMENT (609) 354-9200.

THE FOLLOWING EM SCIENCE SPILL-X ABSORBENT IS RECOMMENDED FOR THIS PRODUCT:

SX0863

SOLVENT SPILL TREATMENT KIT

7. HANDLING AND STORAGE

HANDLING & STORAGE:

KEEP CONTAINER CLOSED.

STORE IN A COOL AREA AWAY FROM IGNITION SOURCES AND OXIDIZERS.

DO NOT BREATHE VAPOR OR MIST.

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DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING.
ELECTRICALLY GROUND ALL EQUIPMENT WHEN HANDLING THIS PRODUCT.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT:

VENTILATION, RESPIRATORY PROTECTION, PROTECTIVE CLOTHING, EYE PROTECTION

RESPIRATORY PROTECTION: IF WORKPLACE EXPOSURE LIMIT(S) OF PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE TLV/PEL), A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING AND/OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

MATERIAL SHOULD BE HANDLED OR TRANSFERRED IN AN APPROVED FUME HOOD OR WITH ADEQUATE VENTILATION.

PROTECTIVE GLOVES MUST BE WORN TO PREVENT SKIN CONTACT (BUTYL RUBBER, VITON OR EQUIVALENT)

SAFETY GLASSES WITH SIDE SHIELDS MUST BE WORN AT ALL TIMES.

WORK / HYGENIC PRACTICES:

WASH THOROUGHLY AFTER HANDLING.

DO NOT TAKE INTERNALLY.

EYE WASH AND SAFETY EQUIPMENT SHOULD BE READILY AVAILABLE.

EXPOSURE GUIDELINES

OSHA - PEL:

COMPONENT	TWA		STEL		PPM	CL		SKIN
	PPM	MG/M3	PPM	MG/M3		MG/M3		
METHANOL	200	260	250	325				X

ACGIH - TLV:

COMPONENT	TWA		STEL		PPM	CL		SKIN
	PPM	MG/M3	PPM	MG/M3		MG/M3		
METHANOL	200	262	250	328				X

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (C 760 MMHG):: 64.5C
MELTING POINT (C):: -98C
SPECIFIC GRAVITY (H2O = 1):: 0.791
VAPOR PRESSURE (MM HG):: 97 20C
PERCENT VOLATILE BY VOL (%): 99.9+
VAPOR DENSITY (AIR = 1):: 1.1
EVAPORATION RATE (BUAC = 1): 5.91
SOLUBILITY IN WATER (%): MISCIBLE
APPEARANCE::
COLORLESS LIQUID, CHARACTERISTIC
ALCOHOLIC ODOR

10. STABILITY AND REACTIVITY

STABILITY:: YES
HAZARDOUS POLYMERIZATION:
DOES NOT OCCUR

HAZARDOUS DECOMPOSITION::
COX, FORMALDEHYDE

CONDITIONS TO AVOID::
HEAT; CONTACT WITH IGNITION SOURCE.

MATERIALS TO AVOID::
() WATER
(X) ACIDS
() BASES
() CORROSIVES
(X) OXIDIZERS
(X) OTHER :

REACTIVE METALS

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:
ORL-HMN LDLO: 143 MG/KG ORL-RAT LD50: 5628 MG/KG
IHL-RAT LC50: 64000 PPM/4H SKN-RBT LD50: 15800 MG/KG

TOXICOLOGICAL FINDINGS:
TESTS ON LABORATORY ANIMALS INDICATE MATERIAL MAY PRODUCE ADVERSE
MUTAGENIC AND REPRODUCTIVE EFFECTS
CITED IN REGISTRY OF TOXIC EFFECTS OF SUBSTANCES (RTECS)

12. DISPOSAL CONSIDERATIONS

EPA WASTE NUMBERS: U154 D001
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TREATMENT:

INCINERATION, FUELS BLENDING OR RECYCLE. CONTACT YOUR LOCAL PERMITTED WASTE DISPOSAL SITE (TSD) FOR PERMISSIBLE TREATMENT SITES.

ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

13. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME...:

METHANOL

DOT ID NUMBER.....: UN1230

14. REGULATORY INFORMATION

TSCA INVENTORY.....:

THE CAS NUMBER OF THIS PRODUCT IS LISTED ON THE TSCA INVENTORY.

COMPONENT	SARA EHS (302)	SARA EHS TPQ (LBS)	CERCLA RQ (LBS)
METHANOL			5000

COMPONENT	OSHA FLOOR LIST	SARA 313	DEMINIMIS FOR SARA 313 (%)
METHANOL	Y	Y	1.0

15. OTHER INFORMATION

COMMENTS:

NONE

NFPA HAZARD RATINGS:

HEALTH : 1

FLAMMABILITY : 3

REACTIVITY : 0
SPECIAL HAZARDS:

REVISION HISTORY:

02/01/83	10/01/83	05/01/85	12/08/86	01/31/87	06/10/87	08/28/87
10/27/87	08/10/88	10/06/88	03/14/89	09/28/89	10/09/89	05/10/90
01/11/91	03/01/91	08/07/91				

- = REVISED SECTION
N/A = NOT AVAILABLE
N/E = NONE ESTABLISHED

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