

LAB

-1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER.....:

PREPARATION DATE.: 11/08/91  
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M SCIENCE  
A DIVISION OF EM INDUSTRIES  
P.O. BOX 70  
480 DEMOCRAT RD.  
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.....: CH<sub>3</sub>OH

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, CO<sub>2</sub>, WATER MIST.

FIRE FIGHTING PROCEDURES.:

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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.

## 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

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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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