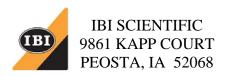
MATERIAL SAFETY DATA SHEET



EMERGENCY TELEPHONE NUMBER: TELEPHONE NUMBER FOR INFORMATION:

3E COMPANY (800) 451-8346 (800) 253-4942 OR (563) 690-0484

(001) 760-602-8703 E-MAIL: INFO@IBISCI.COM

DATE PREPARED: 12-3-05 DATE REVISED: 1-13-10

SECTION 1. ----- CHEMICAL IDENTIFICATION-----

CATALOG#: IB15750

NAME: METHANOL, HPLC GRADE

CAS#: 67-56-1

SECTION 2. ----- HAZARDS IDENTIFICATION -----

LABEL PRECAUTIONARY STATEMENTS

FLAMMABLE (USA)

HIGHLY FLAMMABLE (EU)

TOXIC

TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.

TOXIC: DANGER OF VERY SERIOUS IRREVERSIBLE EFFECTS THROUGH

INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.

IRRITANT

IRRITATING TO EYES AND SKIN.

MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT.

TARGET ORGAN(S):

CENTRAL NERVOUS SYSTEM

KEEP CONTAINER TIGHTLY CLOSED.

KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.

TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES.

AVOID CONTACT WITH SKIN.

WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES.

IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE

IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

HMIS: NFPA:
H: 3 H: 1
F: 3 F: 3
R: 0 R: 0
PE: I SH: N/A

SECTION 3. ---- COMPOSITION/INFORMATION ON INGREDIENTS -----

MF: CH₃OH EC NO: 200-659-6 SYNONYMS

ALCOOL METHYLIQUE (FRENCH) * ALCOOL METILICO (ITALIAN) * BIELESKI'S SOLUTION * CARBINOL * COLONIAL SPIRIT * COLUMBIAN SPIRIT * METANOLO (ITALIAN) * METHANOL (ACGIH) * METHYL ALCOHOL (DOT:OSHA) * METHYLOL * METHYLALKOHOL (GERMAN) * METHYL HYDRATE * METHYL HYDROXIDE * METYLOWY ALKOHOL (POLISH) * MONOHYDROXYMETHANE * PYROXYLIC SPIRIT * RCRA WASTE NUMBER U154 * WOOD ALCOHOL * WOOD NAPHTHA * WOOD SPIRIT *

SECTION 4. ----- FIRST-AID MEASURES-----

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL

RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER

FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND

SHOES. CALL A PHYSICIAN.

IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER

FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING

THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

IF PERSON IS CONSCIOUS AFTER INGESTION OF MATERIAL, IMMEDIATELY GIVE 4 TO 8 OUNCES OF MILK OR WATER.

IF SWALLOWED, DO NOT INDUCE VOMITING; CALL A PHYSICIAN IMMEDIATELY.

SECTION 5. -----FIRE FIGHTING MEASURES -----

EXTINGUISHING MEDIA

WATER SPRAY.

CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO

PREVENT CONTACT WITH SKIN AND EYES.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

FLAMMABLE LIQUID.

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND

FLASH BACK.

CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.

SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.

COVER WITH DRY-LIME, SAND, OR SODA ASH. PLACE IN COVERED CONTAINERS USING NON-SPARKING TOOLS AND TRANSPORT OUTDOORS.

VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE. EVACUATE AREA.

SHUT OFF ALL SOURCES OF IGNITION.

SECTION 7. ----- HANDLING AND STORAGE-----

KEEP CONTAINER CLOSED.

KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.

STORE IN A COOL DRY PLACE.

DO NOT BREATHE VAPOR.

AVOID CONTACT WITH EYES, SKIN AND CLOTHING.

AVOID PROLONGED OR REPEATED EXPOSURE.

DO NOT USE IF SKIN IS CUT OR SCRATCHED. WASH THOROUGHLY AFTER HANDLING.

SECTION 8. - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

SAFETY SHOWER AND EYE BATH.

USE NONSPARKING TOOLS.

CHEMICAL FUME HOOD RECOMMENDED.

WASH CONTAMINATED CLOTHING BEFORE REUSE.

WASH THOROUGHLY AFTER HANDLING.

NIOSH/MSHA-APPROVED RESPIRATOR.

COMPATIBLE CHEMICAL-RESISTANT GLOVES.

CHEMICAL SAFETY GOGGLES.

SECTION 9. - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - -

APPEARANCE

LIQUID

PHYSICAL PROPERTIES

BOILING POINT: 64°C MELTING POINT: -97°C FLASHPOINT 54°F EXPLOSION LIMITS IN AIR:

UPPER 36.00 % LOWER 6.7 %

VAPOR PRESSURE: 96 MMHG @ 68 F

SOLUBILITY:

WATER- COMPLETE SPECIFIC GRAVITY: 0.79 VAPOR DENSITY: 1.1

SECTION 10. -----STABILITY AND REACTIVITY -----

STABILITY

STABLE.

INCOMPATIBILITIES

ACIDS

ACID CHLORIDES

ACID ANHYDRIDES

OXIDIZING AGENTS

ALKALI METALS

REDUCING AGENTS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

CARBON MONOXIDE, CARBON DIOXIDE

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

ACUTE EFFECTS

CAUSES SKIN IRRITATION.

TOXIC IF ABSORBED THROUGH SKIN.

CAUSES EYE IRRITATION.

TOXIC IF INHALED.

MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND UPPER

RESPIRATORY TRACT.

PROLONGED OR REPEATED EXPOSURE MAY CAUSE ALLERGIC REACTIONS IN CERTAIN

SENSITIVE INDIVIDUALS.

TOXIC IF SWALLOWED.

EXPOSURE CAN CAUSE:

GASTROINTESTINAL DISTURBANCES

MAY CAUSE CONVULSIONS.

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND

TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

CHRONIC EFFECTS

TARGET ORGAN(S):

CENTRAL NERVOUS SYSTEM

RTECS #: PC1400000

METHANOL

IRRITATION DATA

 SKN-RBT 20 MG/24H MOD
 85JCAE -,187,1986

 EYE-RBT 40 MG MOD
 UCDS** 3/24/1970

 EYE-RBT 100 MG/24H MOD
 85JCAE -,187,1986

TOXICITY DATA

ORL-MAN LDLO:6422 MG/KG CMAJAX 128,14,1983 ORL-HMN LDLO:428 MG/KG NPIRI* 1,74,1974 ORL-HMN LDLO:143 MG/KG 34ZIAG -,382,1969 UNR-MAN LDLO:868 MG/KG 85DCAI 2,73,1970 ORL-RAT LD50:5628 MG/KG GTPZAB 19(11),27,1975 IHL-RAT LC50:64000 PPM/4H NPIRI* 1,74,1974 IPR-RAT LD50:7529 MG/KG EVHPAZ 61,321,1985 IVN-RAT LD50:2131 MG/KG EVHPAZ 61,321,1985

TARGET ORGAN DATA

SENSE ORGANS AND SPECIAL SENSES (OPTIC NERVE NEUROPATHY)

SENSE ORGANS AND SPECIAL SENSES (VISUAL FIELD CHANGES)

BEHAVIORAL (HEADACHE)

LUNGS, THORAX OR RESPIRATION (DYSPNAE)

LUNGS, THORAX OR RESPIRATION (OTHER CHANGES)

GASTROINTESTINAL (NAUSEA OR VOMITING)

SPECIFIC DEVELOPMENTAL ABNORMALITIES (CENTRAL NERVOUS SYSTEM)

SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM)

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES

(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR

COMPLETE INFORMATION.

SECTION 12. ---- ECOLOGICAL INFORMATION -----

DATA NOT YET AVAILABLE.

SECTION 13. ---- DISPOSAL CONSIDERATIONS -----

OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. ---- TRANSPORT INFORMATION -----

UN#: 1230

PROPER SHIPPING NAME: METHANOL

PG: II

CLASS: 3, 6.1

SECTION 15. ---- REGULATORY INFORMATION -----

EUROPEAN INFORMATION EC INDEX NO: 603-001-00-X

R: 10

FLAMMABLE.



Highly flammable (**F**)

R 42/43

MAY CAUSE SENSITIZATION BY INHALATION. MAY CAUSE SENSITIZATION BY SKIN CONTACT.

R 36/37/38

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN



Irritant (Xi)

R: 23/24/25

TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.



Toxic (T)

S: 15

KEEP AWAY FROM HEAT.

S 36/37/39

WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION. REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-STEL 250 PPM (SKIN) ACGIH TLV-TWA 200 PPM (SKIN)

DTLVS* TLV/BEI,1999 DTLVS* TLV/BEI,1999

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION FEREAC 54,7740,1989

MSHA STANDARD-AIR:TWA 200 PPM (260 MG/M3) (SKIN)

DTLVS* 3,155,1971

OSHA PEL (GEN INDU):8H TWA 200 PPM (260 MG/M3)

CFRGBR 29,1910.1000,1994

OSHA PEL (CONSTRUC):8H TWA 200 PPM (260 MG/M3)

CFRGBR 29.1926.55.1994

OSHA PEL (SHIPYARD):8H TWA 200 PPM (260 MG/M3)

CFRGBR 29,1915.1000,1993

OSHA PEL (FED CONT):8H TWA 200 PPM (260 MG/M3)

CFRGBR 41,50-204.50,1994

OEL-ARAB REPUBLIC OF EGYPT: TWA 200 PPM (260 MG/M3), SKIN, JAN1993

OEL-AUSTRALIA: TWA 200 PPM (260 MG/M3), STEL 250 PPM, SKIN, JAN1993

OEL-AUSTRIA: MAK 200 PPM (260 MG/M3), SKIN, JAN1999

OEL-BELGIUM: TWA 200 PPM (262 MG/M3), STEL 250 PPM, SKIN, JAN1993

OEL-DENMARK: TWA 200 PPM (260 MG/M3), SKIN, JAN1999

OEL-FINLAND: TWA 200 PPM (260 MG/M3), STEL 250 PPM, SKIN, JAN1999

OEL-FRANCE: VME 200 PPM, VLE 1000 PPM, JAN1999

OEL-HUNGARY: TWA 50 MG/M3, STEL 100 MG/M3, SKIN, JAN1993

OEL-JAPAN: OEL 200 PPM (260 MG/M3), SKIN, JAN1999

OEL-THE NETHERLANDS: MAC-TGG 200 PPM (260 MG/M3), SKIN, JAN1999

OEL-NORWAY: TWA 100 PPM (130 MG/M3), JAN1999

OEL-THE PHILIPPINES: TWA 200 PPM (260 MG/M3), JAN1993

OEL-POLAND: MAC(TWA) 100 MG/M3, MAC(STEL) 300 MG/M3, JAN1999

OEL-RUSSIA: TWA 200 PPM, STEL 5 MG/M3, SKIN, JAN1993

OEL-SWEDEN: NGV 200 PPM (250 MG/M3), KTV 250 PPM (350 MG/M3), SKIN, JAN1999

OEL-THAILAND: TWA 200 PPM (260 MG/M3), JAN1993

OEL-TURKEY: TWA 200 PPM (260 MG/M3), JAN1993

OEL-UNITED KINGDOM: TWA 200 PPM (255 MG/M3), STEL 250 PPM, SKIN, SEP2000

OEL IN ARGENTINA, BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV;

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

NIOSH REL TO METHANOL-AIR:10H TWA 200 PPM (SK);STEL 250 PPM (SK)

NIOSH* DHHS #92-100,1992

NOHS 1974: HZD 45930; NIS 344; TNF 78840; NOS 203; TNE 737242

NOES 1983: HZD 45930; NIS 373; TNF 101075; NOS 225; TNE 1620617; TFE

EPA GENETOX PROGRAM 1988, NEGATIVE: SHE-CLONAL ASSAY; CELL

TRANSFORM.-SA7/SHE

EPA GENETOX PROGRAM 1988, NEGATIVE: N CRASSA-ANEUPLOIDY; IN VITRO

SCE-NONHUMAN

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

EPA TSCA SECTION 8(D) UNPUBLISHED HEALTH/SAFETY STUDIES

EPA TSCA SECTION 8(E) RISK NOTIFICATION, 8EHQ-0892-8989

ON EPA IRIS DATABASE

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 2001

NIOSH ANALYTICAL METHOD, 1994: METHANOL, 2000

NIOSH ANALYTICAL METHOD, 1996: VOLATILE ORGANIC COMPOUND, 2549

U.S. INFORMATION

THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.

SECTION 16. ----- OTHER INFORMATION-----

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. IBI SCIENTIFIC SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.