

TERRA INTERNATIONAL, INC. -- METHANOL -- 6810-00-275-6010

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

Product ID:METHANOL  
MSDS Date:12/01/1994  
FSC:6810  
NIIN:00-275-6010  
MSDS Number: BYVVK  
=== Responsible Party ===  
Company Name:TERRA INTERNATIONAL, INC.  
Address:WOODWARD COMPLEX, 1000 TERRA DRIVE  
City:WOODWARD  
State:OK  
ZIP:73801  
Country:US  
Info Phone Num:405-256-8651  
Emergency Phone Num:405-256-8651  
Chemtrec  
Ind/Phone:(800)424-9300  
CAGE:TERRA  
=== Contractor Identification ===  
Company Name:HOC INDUSTRIES, INC  
Address:3511 N. OHIO  
Box:2609  
City:WICHITA  
State:KS  
ZIP:67219  
Country:US  
Phone:316-838-4663  
Contract Num:SP0450-99-M-C702  
CAGE:0A9L8  
Company Name:TERRA INTERNATIONAL, INC  
Address:600 FORTH STREET  
Box:6000  
City:SIOUX CITY  
State:IA  
ZIP:51102-6000  
Country:US  
Phone:800-831-1002 EXT321  
CAGE:TERRA

===== Composition/Information on Ingredients =====

Ingred Name:METHYL ALCOHOL (METHA

NOL) (SARA 313) (CERCLA)  
CAS:67-56-1  
RTECS #:PC1400000  
= Wt:100.  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:S, 200 PPM  
ACGIH TLV:S,200PPM/250STEL; 95  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

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

LD50 LC50 Mixture:LD50 (ORL RAT) IS 5628 MG/KG (RTECS).  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:TARGET ORGANS: LIVER. ACUTE: HUMAN

HEALTH EFFECTS OF OVEREXPOSURE BY INHALATION, INGESTION, OR SKIN OR EYE CONTACT MAY INCLUDE NONSPECIFIC DISCOMFORT; AND TEMPORARY NERVOUS SYSTEM DEPRESSION WITH ANESTHETIC EFFECTS. HIGHER EXPOSURES MAY LEAD TO ABNORMAL LIVER FUNCTION. INGESTION OF AS LITTLE AS 60 ML MAY CAUSE BLINDNESS OR FATALITY. SKIN PERMEATION CAN OCCUR IN AMOUNTS CAPABLE OF PRODUCING SYSTEMS TOXICITY.

Effects of Overexposure:HUMAN HEALTH EFFECTS OF OVEREXPOSURE BY INHALATION, INGESTION, OR SKIN OR EYE CONTACT MAY INCLUDE NONSPECIFIC DISCOMFORT SUCH AS NAUSEA, OR WEAKNESS; AND TEMPORARY NERVOUS SYSTEM DEPRESSION WITH ANESTHETIC EFFECTS SUCH AS DIZZINESS, HEADACHE, CONFUSION, INCOORDINATION, AND LOSS OF CONSCIOUSNESS; OR BLINDNESS.

Medical Cond Aggravated by Exposure:INDIVIDUALS WITH PREEXISTING DISEASES OF THE RETINA OR LIVER MAY HAVE INCREASED SUSCEPTIBILITY TO TOXICITY OF EXCESSIVE EXPOSURE.

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

First Aid:EYE:IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES. HOLD EYELIDS OPEN. SEE PHYSICIAN. SKIN:WASH AFFECTED AREA WITH SOAP & WATER. IF IRRITATION PERSISTS, SEE DOCTOR. INHALED:REMOVE TO FRESH AIR. PROVIDE C PR/OXYGEN IF NEEDED. OBTAIN EMERGENCY MEDICAL HELP. ORAL:IF CONSCIOUS, IMMEDIATELY INDUCE VOMITING BY DRINKING WATER & PRESSING FINGER DOWN THROAT. CALL A PHYSICIAN/POISON CONTROL CENTER IMMEDIATELY.

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

=====

Flash Point Method:TCC  
Flash Point:=11.1C, 52.F  
Autoignition Temp:=385.C, 725.F  
Lower Limits:6.0%  
Upper Limits:36%  
Extinguishing Media:WATER SPRAY, DRY CHEMICAL, C02. "ALCOHOL" FOAM.  
Fire Fighting Procedures:EVACUATE AFFECTED AREA. STAY UPWIND AND AVOID SMOKE AND FUMES. USE WATER TO COOL CONTAINERS. IF SMOKE AND FUMES CANNOT BE AVOIDED, WEAR SELF-CONTAINED BREATHING APPARATUS.  
Unusual Fire/Explosion Hazard:FLAMMABLE LIQUID. FLAME IN INVISIBLE IN DAYLIGHT. METHANOL-WATER MIXTURE  
S WILL BURN UNLESS VERY DILUTE,  
MIXTURES WITH 25% OR MORE METHANOL ARE OSHA CLASS I FLAMMABLE LIQUIDS. FOLLOW APPROPRIATE NATIO NAL FIRE PROTECTION ASSOCIATION (NFPA) CODES.

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

Spill Release Procedures:USE APPROPRIATE PERSONAL PROTECTION EQUIPMENT DURING CLEAN UP. DIKE LARGE SPILLS. FLUSH SPILL AREA WITH PLENTY OF WATER. DO NOT FLUSH TO SEWER. COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS ON REP ORTIN G RELEASES.

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

Handling and Storage Precautions:KEEP AWAY FROM HEAT, SPARKS, AND FLAME. KEEP CONTAINERS TIGHTLY CLOSED. DO NOT STORE OR MIX WITH STRONG OXIDIZERS, CHROMIC ANHYDRIDE, LEAD PERCHLORIC, OR PERCHLORIC ACID. STORE IN ADEQUATELY VENTILATE D AREA.  
Other Precautions:BOND AND GROUND CONTAINERS WHEN TRANSFERRING LIQUID. AVOID BREATHING VAPORS. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. USE WITH ADEQUATE VENTILATION OR UNDER HOOD. WASH THOROUGHLY AFTER HANDLING. KE EP OUT OF REACH OF CHILDREN.

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

Respiratory Protection:NIOSH/MSHA APPROVED RESPIRATORY PROTECTION.  
Ventilation:MECHANICAL (GENERAL AND/OR LOCAL EXHAUST, EXPLOSION-PROOF) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).  
Protective Gloves:CHEMICAL RESISTANT GLOVES.  
Eye Protection:CHEMICAL SPLASH GOGGLES/FACE SHIELD  
Other Protective Equipment:UNIFORM, PROTECTIVE SU

IT, EYEWASH STATION &  
EMERGENCY SHOWER.

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND  
RECOMMENDED PROCEDURES. MONITORING OF AIR IN WORKPLACE IS  
RECOMMENDED.

Supplemental Safety and Health  
NONE

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

HCC:F5

Boiling Pt:=64.7C, 148.3F

B.P. Text:AT 760 MM HG

Melt/Freeze Pt:=-97.7C, -143.8F

Vapor Pres:127 MMHG @ 77 DEG F

Vapor Density:1.1(AIR=1)

Spec Gravity:0.791 @ 68 DEG F

Evaporation Rate & Refer  
ence:>1 (N-BUTYL ACETATE=1)

Solubility in Water:100 WT %

Appearance and Odor:LIQUID, COLORLESS OR CLEAR, FAINT ALCOHOLIC

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

Stability Indicator/Materials to Avoid:YES

DO NOT STORE OR MIX WITH STRONG OXIDIZERS, CHRONIC ANHYDRIDE, LEAD  
PERCHLORATE, OR PERCHLORIC ACID (REACTS VIGOROUSLY).

Stability Condition to Avoid:NONE PROVIDED BY MFR.

Hazardous Decomposition Products:NONE PROVIDED BY MFR. (MFR STATED:  
OCCURS FROM HEAT A

ND REACTION WITH ABOVE STATED MATERIALS)

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

Waste Disposal Methods:CLEANED UP MATERIAL MAY BE AN RCRA HAZARDOUS  
WASTE. THE RCRA HAZARDOUS WASTE NUMBER FOR METHANOL IS U154. COMPLY  
WITH FEDERAL, STATE, AND LOCAL REGULATIONS ON DISPOSAL. IF APPROVED  
INCINERATION, BIO-O XIDATION, SUBSURFACE INJECTION, OR A LICENSED  
DISPOSAL CONTRACTOR MAY BE USED.

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

Transport Information:DOT/IMO PROPER SHIPPING NAME: METHANOL, UN1230.  
HAZARD CLASS 3, SUBSIDIARY RISK: POISON.

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

SARA Title III Information:REGULATED AS A TOXIC CHEMICAL UNDER SECTION  
313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION  
ACT OF 1986 AND 40 CFR PART 372. RELEVANT HAZARD CATEGORIES: ACUTE,  
CHRONIC, FIRE, CERCLA, AND 313.

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