

MSDS C0564

ITEM: 3NZD9 - CPVC Cement, 8 Oz, Orange

OTU Item 36997

DELIVERY: 6254425882

HU NUMBER: U859131765

MATERIAL SAFETY DATA SHEET (MSDS)

This MSDS should be attached or kept with the respective product with which it is associated.

MATERIAL SAFETY DATA SHEET - C0564

Associated Grainger Items

E-Z WELD(R\*)

MATERIAL SAFETY DATA SHEET

PREPARED TO U.S. OSHA, CMA, ANSI AND CANADIAN WHMIS, AND EUROPEAN COMMUNITY STANDARDS

PART I: WHAT IS THE MATERIAL AND WHAT DO I NEED TO KNOW IN AN EMERGENCY?

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):

- CPVC CEMENT PRODUCTS:
207 CPVC ORANGE
208 MULTIPURPOSE
217 CPVC GRAY
227 FLOWGUARD
907 LOW VOC ORANGE
908 LOW VOC MULTI PURPOSE
CPVC HEAVY BODY ORANGE

CHEMICAL NAME/CLASS: CHLORINATED PVC/SOLVENT MIXTURE

PRODUCT USE: SOLVENT CEMENT FOR CPVC MATERIAL

SUPPLIER/MANUFACTURER'S NAME: E-Z WELD INC

U.S. BUSINESS PHONE:

1-800-327-8460
1-561-844-0241

U.S. ADDRESS:

1661 OLD DIXIE HIGHWAY
RIVIERA BEACH, FL 33404

U.S. EMERGENCY PHONE:

CHEMTREC:
1-800-424-9300 (U.S. AND CANADA)
1-703-527-3887 (INTERNATIONAL)

DATE OF PREPARATION: NOVEMBER 12, 2008

2. COMPOSITION AND INFORMATION ON INGREDIENTS

Table with 4 columns: CHEMICAL NAME, CAS #, EINECS #, % W/W. Includes Tetrahydrofuran, Methyl Ethyl Ketone, Chlorinated Polyvinyl Chloride Resin, Cyclohexanone, 1,2-Butylene Oxide, Acetone, and Silicon Dioxide.

Table with 5 columns: CHEMICAL NAME, EXPOSURE LIMITS IN AIR (ACGIH TLV, OSHA PEL, IDHL STEL, OTHER PPM), and NIOSH REL. Includes Tetrahydrofuran and Methyl Ethyl Ketone.

Table with 5 columns: CHEMICAL NAME, EXPOSURE LIMITS IN AIR (ACGIH TLV, OSHA PEL, IDHL STEL, OTHER PPM), and NIOSH REL. Includes Chlorinated Polyvinyl Chloride Resin.

Table with 5 columns: CHEMICAL NAME, EXPOSURE LIMITS IN AIR (ACGIH TLV, OSHA PEL, IDHL STEL, OTHER PPM), and NIOSH REL. Includes Cyclohexanone.

Table with 5 columns: CHEMICAL NAME, EXPOSURE LIMITS IN AIR (ACGIH TLV, OSHA PEL, IDHL STEL, OTHER PPM), and NIOSH REL. Includes 1,2-Butylene Oxide.

Table with 5 columns: CHEMICAL NAME, EXPOSURE LIMITS IN AIR (ACGIH TLV, OSHA PEL, IDHL STEL, OTHER PPM), and NIOSH REL. Includes 1,2-Butylene Oxide.

ACETONE 500 A4 (NOT 750 1000 NE 2500 NIOSH REL: CLASSIFIABLE 750 1000 BASED TWA = 250 AS A HUMAN (VACATED (VACATED ON LEL DFG MAK: CARCINOGEN) 1989 1989 500; PEL) PEL) CARCINOGEN :EPA-D

SILICON DIOXIDE FOR CAS # NE 20 MPPCF OR 3000 NIOSH REL: (EXPOSURE LIMITS 61790-53-2 80 MG/M3/% SiO2 MG/M3 6 MG/M3 ARE FOR (UNCALCINED) 6 MG/M3 (VACATED DFG MAK: SILICA-AMORPHOUS 10 MG/M3 1989 PEL) 4 MG/M3 DIATOMACEOUS (INHALABLE (CAS # EARTH) PARTICULATE) 61790-53-2 3 MG/M3 ) CARCINOGEN: IARC-3 (CAS # 61790-53-2 )

NE = NOT ESTABLISHED. C = CEILING LIMIT.

SEE SECTION 16 FOR DEFINITIONS OF TERMS USED.

NOTE:

ALL WHMIS AND EC REQUIRED INFORMATION IS INCLUDED. IT IS LOCATED IN APPROPRIATE SECTIONS BASED ON THE ANSI Z400.1-1993 FORMAT.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:

THIS IS AN EXTREMELY FLAMMABLE LIQUID WITH AN ETHER-LIKE ODOR. THIS PRODUCT COMES IN A VARIETY OF COLORS. INHALATION OVEREXPOSURES TO THE VAPORS OF THIS PRODUCT CAN CAUSE CENTRAL-NERVOUS SYSTEM EFFECTS (E.G., DIZZINESS, DROWSINESS, NAUSEA, AND HEADACHES).

SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE:

THE MOST SIGNIFICANT ROUTES OF OCCUPATIONAL OVEREXPOSURE ARE INHALATION AND CONTACT WITH SKIN AND EYES.

THE SYMPTOMS OF OVEREXPOSURE TO THIS PRODUCT, VIA ROUTE OF EXPOSURE, ARE AS FOLLOWS:

INHALATION:

INHALATION OF VAPORS, MISTS, OR SPRAYS OF THIS PRODUCT CAN BE IRRITATING TO THE NOSE, THROAT, MUCOUS MEMBRANES, AND OTHER TISSUES OF THE RESPIRATORY SYSTEM. SYMPTOMS OF OVEREXPOSURE CAN INCLUDE COUGHING, SNEEZING, AND SHORTNESS OF BREATH.

THIS PRODUCT MUST BE USED WITH ADEQUATE VENTILATION. MECHANICAL EXHAUST MAY BE NEEDED. ENSURE EXPOSURE TO VAPORS IS MINIMIZED BY USE OF APPROPRIATE ENGINEERING CONTROLS, WORK PRACTICES, AND PERSONAL PROTECTIVE EQUIPMENT, AS DESCRIBED IN THE REMAINDER OF THIS DOCUMENT.

CONTACT WITH SKIN OR EYES:

CONTACT WITH THIS PRODUCT CAN BE IRRITATING TO CONTAMINATED SKIN AND EYES. VAPORS OF THIS PRODUCT CAN REDDEN AND IRRITATE THE EYES.

SKIN ABSORPTION:

SKIN ABSORPTION IS A POTENTIAL ROUTE OF OVEREXPOSURE FOR CYCLOHEXANONE (A COMPONENT OF THIS PRODUCT). SYMPTOMS OF SUCH EXPOSURE CAN INCLUDE THOSE DESCRIBED UNDER "INHALATION" AND "CONTACT WITH SKIN AND EYES".

INGESTION:

INGESTION IS NOT ANTICIPATED TO BE A SIGNIFICANT ROUTE OF OCCUPATIONAL OVEREXPOSURE FOR THIS PRODUCT. IF INGESTION OCCURS, REFER TO SECTION 4 (FIRST-AID MEASURES) AND GET MEDICAL HELP IMMEDIATELY.

INJECTION:

INJECTION IS NOT ANTICIPATED TO BE A SIGNIFICANT ROUTE OF OVER-EXPOSURE FOR THIS PRODUCT. IF INJECTION DOES OCCUR (I.E. THROUGH A PUNCTURE BY AN OBJECT CONTAMINATED WITH THE PRODUCT), LOCAL IRRITATION AND SWELLING CAN OCCUR.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: AN EXPLANATION IN LAY TERMS.

ACUTE:

OVER-EXPOSURES TO THIS PRODUCT CAN BE IRRITATING TO THE EYES, SKIN, AND MUCOUS MEMBRANES, AND CAN ALSO CAUSE CENTRAL-NERVOUS SYSTEM EFFECTS (DIZZINESS, DROWSINESS, NAUSEA AND HEADACHES).

CHRONIC:

PROLONGED OR REPEATED SKIN EXPOSURES CAN LEAD TO DERMATITIS (DRYNESS, REDDENING AND IRRITATION OF THE SKIN). TETRAHYDROFURAN, A COMPONENT OF THIS PRODUCT, MAY CAUSE LIVER AND KIDNEY DAMAGE AFTER LONG-TERM INHALATION OVEREXPOSURES.

SECTION 11 (TOXICOLOGICAL INFORMATION) FOR ADDITIONAL INFORMATION. A REPORT FROM THE NATIONAL TOXICOLOGY PROGRAM (NTP) HAS SUGGESTED THAT EXPOSURE OF MICE AND RATS TO TETRAHYDROFURAN (THF) VAPOR LEVELS UP TO 1800 PPM 6 HR/DAY, 5 DAYS/WEEK FOR THEIR LIFETIMES CAUSED AN INCREASED INCIDENCE OF KIDNEY TUMORS IN MALE RATS AND LIVER TUMORS IN FEMALE MICE. NO EVIDENCE OF TUMORS WAS SEEN IN FEMALE RATS OR MALE MICE. THE SIGNIFICANCE OF THESE FINDINGS FOR HUMAN HEALTH IS UNCLEAR AT THIS TIME, AND MAY BE RELATED TO "SPECIES SPECIFIC" EFFECTS. ELEVATED INCIDENCES OF TUMORS IN HUMANS HAVE NOT BEEN REPORTED FOR THF. THE NTP, IARC, OR OSHA DOES NOT LIST THF AS A CARCINOGEN. ONE THF VENDOR (DU PONT) HAS RECOMMENDED A REDUCTION IN THE "ACCEPTABLE EXPOSURE LIMIT" FROM 200 PPM TO 25 PPM, 8 AND 12 HOUR TIME WEIGHTED AVERAGE (TWA) STEL OF 75 PPM.

**TARGET ORGANS:**  
ACUTE: SKIN, EYES, RESPIRATORY SYSTEM, CENTRAL NERVOUS SYSTEM.  
CHRONIC: LIVER, KIDNEYS.

**HAZARDOUS MATERIAL INFORMATION SYSTEM:**  
HEALTH (BLUE) 2  
FLAMMABILITY (RED) 3  
REACTIVITY (YELLOW) 1  
PROTECTION EQUIPMENT C/D

EYES: CHEMICAL GOGGLES  
RESPIRATORY: SEE SECTION 8  
HANDS: GLOVES  
BODY: APRON

FOR ROUTINE APPLICATIONS

SEE SECTION 16 FOR DEFINITION OF RATINGS

PART II: WHAT SHOULD I DO IF A HAZARDOUS SITUATION OCCURS?

#### -----4. FIRST-AID MEASURES -----

**SKIN EXPOSURE:**  
IF THIS PRODUCT CONTAMINATES THE SKIN, IMMEDIATELY BEGIN DECONTAMINATION WITH RUNNING WATER. MINIMUM FLUSHING IS FOR 15 MINUTES. REMOVE EXPOSED OR CONTAMINATED CLOTHING, TAKING CARE NOT TO CONTAMINATE EYES. THE CONTAMINATED INDIVIDUAL MUST SEEK MEDICAL ATTENTION IF ANY ADVERSE EFFECT OCCURS.

**EYE EXPOSURE:**  
IF THIS PRODUCT'S LIQUID OR VAPORS ENTER THE EYES, OPEN VICTIM'S EYES WHILE UNDER GENTLY RUNNING WATER. USE SUFFICIENT FORCE TO OPEN EYELIDS. HAVE VICTIM "ROLL" EYES. MINIMUM FLUSHING IS FOR 15 MINUTES. THE CONTAMINATED INDIVIDUAL MUST SEEK IMMEDIATE MEDICAL ATTENTION.

**INHALATION:**  
IF VAPORS, MISTS, OR SPRAYS OF THIS PRODUCT ARE INHALED, REMOVE VICTIM TO FRESH AIR. IF NECESSARY, USE ARTIFICIAL RESPIRATION TO SUPPORT VITAL FUNCTIONS. REMOVE OR COVER GROSS CONTAMINATION TO AVOID EXPOSURE TO RESCUERS.

**INGESTION:**  
IF THIS PRODUCT IS SWALLOWED, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. IF PROFESSIONAL ADVICE IS NOT AVAILABLE, DO NOT INDUCE VOMITING. THE CONTAMINATED INDIVIDUAL SHOULD DRINK MILK, EGG WHITES, LARGE QUANTITIES OF WATER. NEVER INDUCE VOMITING OR GIVE DILUENTS (MILK OR WATER) TO SOMEONE WHO IS UNCONSCIOUS, HAVING CONVULSIONS, OR UNABLE TO SWALLOW.

THE CONTAMINATED INDIVIDUAL MUST BE TAKEN FOR MEDICAL ATTENTION, ESPECIALLY IF ANY ADVERSE EFFECT OCCURS. RESCUERS SHOULD BE TAKEN FOR MEDICAL ATTENTION, IF NECESSARY, TAKE A COPY OF LABEL AND MSDS TO HEALTH PROFESSIONAL WITH VICTIM.

#### -----5. FIRE-FIGHTING MEASURES -----

THE FOLLOWING INFORMATION IS VARIABLE, DEPENDING ON THE BLEND. THE FOLLOWING INFORMATION IS FOR THE MAIN SOLVENTS COMPONENT OF THIS PRODUCT.

**FLASH POINT:**  
METHYL ETHYL KETONE: -9 DEG. C (15 DEG. F)  
TETRAHYDROFURAN: -17 DEG. C (4.1 DEG. F)

**AUTOIGNITION TEMPERATURE:**  
METHYL ETHYL KETONE: 404 DEG. C (759 DEG. F)  
TETRAHYDROFURAN: 321 DEG. C (610 DEG. F)

**FLAMMABLE LIMITS (IN AIR BY VOLUME):**

**METHYL ETHYL KETONE:**  
LOWER (LEL): 1.8%  
UPPER (UEL): 10.0%

**TETRAHYDROFURAN:**  
LOWER (LEL): 1.8%  
UPPER (UEL): 11.8%

**NFPA RATING:**  
HEALTH 2  
FLAMMABILITY 3  
REACTIVITY 1  
OTHER

SEE SECTION 16 FOR DEFINITION OF RATINGS

THE FOLLOWING INFORMATION IS FOR THE PRODUCT.

**FIRE EXTINGUISHING MATERIALS:**  
WATER SPRAY: YES (FOR COOLING ONLY)  
CARBON DIOXIDE: YES  
FOAM: YES  
DRY CHEMICAL: YES  
IN: YES  
R: ANY "B" CLASS.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**  
THIS IS A CLASS I-B FLAMMABLE LIQUID. WHEN INVOLVED IN A FIRE, THIS MATERIAL MAY IGNITE AND PRODUCE IRRITATING VAPORS AND TOXIC GASES (E.G., CARBON MONOXIDE, CARBON DIOXIDE). THIS MATERIAL WILL READILY IGNITE AT ROOM TEMPERATURE. THE VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL TO A SOURCE OF IGNITION, AND FLASH BACK TO A LEAK OR OPEN CONTAINER. TETRAHYDROFURAN CAN FORM POTENTIALLY EXPLOSIVE PEROXIDES; CLOSED CONTAINERS CONTAMINATED WITH PEROXIDES CAN RUPTURE VIOLENTLY IN THE HEAT OF A FIRE. ANOTHER COMPONENT,

1,2-BUTYLENE OXIDE, CAN UNDERGO HAZARDOUS POLYMERIZATION.

EXPLOSION SENSITIVITY TO MECHANICAL IMPACT: NOT SENSITIVE.

EXPLOSION SENSITIVITY TO STATIC DISCHARGE:  
THE VAPORS OF THIS PRODUCT CAN BE IGNITED BY STATIC ELECTRICAL ENERGY.

**SPECIAL FIRE-FIGHTING PROCEDURES:**  
INCIPIENT FIRE RESPONDERS SHOULD WEAR EYE PROTECTION. STRUCTURAL FIREFIGHTERS MUST WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE EQUIPMENT. IF IT IS SAFE TO DO SO, ALLOW SMALL FIRES INVOLVING THIS PRODUCT TO BURN-OUT, WHILE PROTECTING EXPOSURES. IF POSSIBLE, PREVENT RUNOFF WATER FROM ENTERING STORM DRAINS, BODIES OF WATER, OR OTHER ENVIRONMENTALLY SENSITIVE AREAS. IF NECESSARY, RINSE CONTAMINATED EQUIPMENT THOROUGHLY BEFORE RETURNING SUCH EQUIPMENT TO SERVICE.

#### -----6. ACCIDENTAL RELEASE MEASURES -----

**RELEASE RESPONSE:**  
IN CASE OF A SPILL, CLEAR THE AFFECTED AREA AND PROTECT PEOPLE. UNCONTROLLED RELEASES SHOULD BE RESPONDED TO BY TRAINED PERSONNEL USING PRE-PLANNED PROCEDURES. PROPER PROTECTIVE EQUIPMENT SHOULD BE USED.

SMALL RELEASES (E.G., 1-PINT) MUST BE CLEANED-UP BY PERSONNEL WEARING GLOVES, GOGGLES, AND APPROPRIATE EYE PROTECTION. FACE SHIELDS MUST BE WORN IF SPLASHES OR SPRAYS OF THIS PRODUCT MAY BE GENERATED.

IN THE EVENT OF A NON-INCIDENTAL RELEASE (E.G., FIVE, 1-GALLON CONTAINERS LEAKING SIMULTANEOUSLY IN A POORLY-VENTILATED AREA), THE MINIMUM PERSONAL PROTECTIVE EQUIPMENT SHOULD BE LEVEL B: TRIPLE-GLOVES (RUBBER GLOVES AND NITRILE GLOVES, OVER LATEX GLOVES), CHEMICALLY RESISTANT SUIT AND BOOTS, HARD-HAT, AND SELF-CONTAINED BREATHING APPARATUS. LEVEL B SHOULD ALWAYS BE USED DURING RESPONSES IN WHICH THE OXYGEN LEVEL IS BELOW 19.5% OR UNKNOWN. ELIMINATE ALL SOURCES OF IGNITION BEFORE SPILL CLEAN-UP BEGINS. USE NON-SPARKING TOOLS. ABSORB SPILLED LIQUID WITH ACTIVATED CARBON, POLYPADS OR OTHER SUITABLE ABSORBENT MATERIALS. MONITOR THE AREA FOR COMBUSTIBLE VAPORS AND THE LEVEL OF OXYGEN. MONITORING MUST INDICATE LESS THAN 10% OF THE LEL (SEE SECTION 5, FIRE-FIGHTING MEASURES) AND GREATER THAN 19.5% OXYGEN IS IN THE ATMOSPHERE BEFORE PERSONNEL ARE PERMITTED IN THE AREA WITHOUT LEVEL B PROTECTION. PLACE ALL SPILL RESIDUE IN AN APPROPRIATE CONTAINER AND SEAL. DISPOSE OF IN ACCORDANCE WITH U.S. FEDERAL, STATE, OR LOCAL PROCEDURES, THE APPLICABLE STANDARDS OF CANADA AND ITS PROVINCES, OR THE APPROPRIATE REQUIREMENTS OF EUROPEAN COMMUNITY MEMBER STATES (SEE SECTION 13, DISPOSAL CONSIDERATIONS).

PART III: HOW CAN I PREVENT HAZARDOUS SITUATIONS FROM OCCURRING?

#### -----7. HANDLING AND STORAGE -----

**WORK PRACTICES AND HYGIENE PRACTICES:**  
AS WITH ALL CHEMICALS, AVOID GETTING THIS PRODUCT ON YOU OR IN YOU. WASH THOROUGHLY AFTER HANDLING THIS PRODUCT. DO NOT EAT, DRINK, SMOKE, OR APPLY COSMETICS WHILE HANDLING THIS PRODUCT. AVOID BREATHING VAPORS OR MISTS GENERATED BY THIS PRODUCT. USE IN A WELL-VENTILATED LOCATION. REMOVE CONTAMINATED CLOTHING IMMEDIATELY.

**STORAGE AND HANDLING PRACTICES:**  
ALL EMPLOYEES WHO HANDLE THIS MATERIAL SHOULD BE TRAINED TO HANDLE IT SAFELY. CONTAINERS OF THIS PRODUCT MUST BE PROPERLY LABELED. IF THIS MIXTURE IS USED IN OTHER TYPES OF CONTAINERS, ONLY USE PORTABLE CONTAINERS APPROVED FOR FLAMMABLE LIQUIDS. POST "NO SMOKING" SIGNS, WHERE APPROPRIATE IN STORAGE AND USE AREAS. USE NON-SPARKING TOOLS. BOND AND GROUND DURING TRANSFER OF MATERIAL. STORE CONTAINERS OF THE PRODUCT IN A COOL, DRY LOCATION, AWAY FROM DIRECT SUNLIGHT, SOURCES OF INTENSE HEAT, OR WHERE FREEZING IS POSSIBLE. MATERIAL SHOULD BE STORED IN SECONDARY CONTAINERS, OR IN A DIKED AREA, AS APPROPRIATE. STORAGE AREAS SHOULD BE MADE OF FIRE-RESISTANT MATERIALS. INSPECT ALL INCOMING CONTAINERS BEFORE STORAGE, TO ENSURE CONTAINERS ARE PROPERLY LABELED AND NOT DAMAGED. REFER TO NFPA 30, FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE FOR ADDITIONAL INFORMATION ON STORAGE. EMPTY CONTAINERS MAY CONTAIN RESIDUAL FLAMMABLE LIQUID OR VAPORS. THEREFORE, EMPTY CONTAINERS SHOULD BE HANDLED WITH CARE. DO NOT EXPOSE "EMPTY" CONTAINERS TO WELDING TOUCHES, OR ANY OTHER SOURCE OF IGNITION.

**PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:**  
FOLLOW PRACTICES INDICATED IN SECTION 6 (ACCIDENTAL RELEASE MEASURES). MAKE CERTAIN THAT APPLICATION EQUIPMENT IS LOCKED AND TAGGED-OUT SAFELY, IF NECESSARY. COLLECT ALL RINSATES AND DISPOSE OF ACCORDING TO APPLICABLE U.S. FEDERAL, STATE, OR LOCAL PROCEDURES, THE APPLICABLE STANDARDS OF CANADA AND ITS PROVINCES, OR THE APPROPRIATE REQUIREMENTS OF EUROPEAN COMMUNITY MEMBER STATES.

#### -----8. EXPOSURE CONTROLS - PERSONAL PROTECTION -----

**VENTILATION AND ENGINEERING CONTROLS:**  
USE WITH ADEQUATE VENTILATION. MECHANICAL EXHAUST MAY BE NEEDED.

**EMERGENCY EYE-WASH/SAFETY SHOWERS:**  
WHERE THERE IS ANY POSSIBILITY THAT AN EMPLOYEE'S EYES MAY BE EXPOSED TO THIS SUBSTANCE, THE EMPLOYER SHOULD PROVIDE AN EYE-WASH FOUNTAIN/SAFETY SHOWER WITHIN THE IMMEDIATE WORK AREA FOR EMERGENCY USE.

**RESPIRATORY PROTECTION:**  
RESPIRATORY PROTECTION IS NOT GENERALLY NEEDED WHEN USING THIS PRODUCT. MAINTAIN AIRBORNE CONTAMINANT CONCENTRATIONS BELOW GUIDELINES LISTED IN SECTION 2 (COMPOSITION, INFORMATION ON INGREDIENTS). IF RESPIRATORY PROTECTION IS NEEDED, USE ONLY PROTECTION AUTHORIZED IN 29 CFR 1910.134 OR APPLICABLE STATE REGULATIONS. USE SUPPLIED AIR RESPIRATION PROTECTION IF OXYGEN LEVELS ARE BELOW 19.5% OR ARE UNKNOWN. RESPIRATORY PROTECTION GUIDELINES FOR TETRAHYDROFURAN (A COMPONENT OF THIS PRODUCT) ARE PROVIDED AS FOLLOWS.

**NIOSH/OSHA RECOMMENDATIONS FOR TETRAHYDROFURAN CONCENTRATIONS IN AIR:**

UP TO 2000 PPM:  
SUPPLIED AIR RESPIRATOR (SAR) OPERATED IN A CONTINUOUS-FLOW MODE, FULL-FACEPIECE CHEMICAL CARTRIDGE RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE(S), GAS MASK WITH ORGANIC VAPOR CANISTER, POWERED AIR-PURIFYING RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE(S), FULL-FACEPIECE SELF-CONTAINED BREATHING APPARATUS (SCBA), OR FULL-FACEPIECE SAR.

EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS:  
POSITIVE PRESSURE, FULL-FACEPIECE SCBA OR POSITIVE PRESSURE, FULL-FACEPIECE SAR WITH AN AUXILIARY POSITIVE PRESSURE SCBA.

ESCAPE: GAS MASK WITH ORGANIC VAPOR CANISTER OR ESCAPE-TYPE SCBA.

NOTE:  
THE IDLH CONCENTRATION FOR TETRAHYDROFURAN IS 2000 PPM. THIS VALUE IS BASED ON THE LOWER EXPLOSIVE LIMIT (LEL). RESPIRATORY PROTECTION EQUIPMENT MAY NOT BE ADEQUATE FOR FIRE SITUATIONS.

EYE PROTECTION:  
SPLASH GOGGLES OR SAFETY GLASSES. FACE SHIELD SHOULD BE WORN WHEN WORKING IN SITUATIONS IN WHICH SPLASHES OR SPRAYS CAN BE GENERATED.

HAND PROTECTION:  
GLOVES FOR ROUTINE INDUSTRIAL USE TO PROTECT HANDS FROM CONTACT. FOR EXPOSURES, OR UNUSUAL CONTACT, SUCH AS SPILL CLEANUP, CHEMICAL RESISTANT GLOVES MAY BE REQUIRED. SEE SECTION 6.

BODY PROTECTION:  
USE BODY PROTECTION APPROPRIATE FOR TASK (E.G., APRON OR TYVEK SUIT).

#### -----9. PHYSICAL AND CHEMICAL PROPERTIES -----

RELATIVE VAPOR DENSITY (AIR = 1): >1

SPECIFIC GRAVITY (WATER = 1): <1.0

SOLUBILITY IN WATER @ 25 DEG. C: SOMEWHAT SOLUBLE.

VAPOR PRESSURE, MMHg @ 20 DEG. C: NOT ESTABLISHED.

ODOR THRESHOLD: NOT ESTABLISHED.

COEFFICIENT OF OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): NOT ESTABLISHED.

ODOR THRESHOLD: 2.48-3.47 PPM (TETRAHYDROFURAN)

COLOR: VARIABLE COLOR.

VISCOSITY: NOT AVAILABLE.

EVAPORATION RATE (nBuAc = 1): >1

FREEZING/MELTING POINT: NOT ESTABLISHED.

BOILING POINT: NOT ESTABLISHED.

pH: NOT ESTABLISHED.

FORM: LIQUID.

ODOR: ETHEREAL.

FLASH POINT:  
METHYL ETHYL KETONE: -9 DEG. C (15 DEG. F)  
TETRAHYDROFURAN: -17 DEG. C (4.1 DEG. F)

HOW TO DETECT THIS SUBSTANCE (WARNING PROPERTIES):  
THE COLOR AND ODOR OF THE PRODUCT MAY BE DISTINCTIVE PROPERTIES OF THIS PRODUCT.

#### -----10. STABILITY AND REACTIVITY -----

STABILITY: STABLE.

NOTE:  
TETRAHYDROFURAN, A COMPONENT OF THIS PRODUCT, CAN FORM POTENTIALLY EXPLOSIVE PEROXIDE COMPOUNDS WHEN EXPOSED TO LIGHT OR AIR. THOUGH THIS PRODUCT CONTAINS INHIBITORS TO PREVENT PEROXIDE FORMATION, CARE SHOULD BE USED WHEN STORING THIS PRODUCT, OR HANDLING OLD CONTAINERS OF THIS MATERIAL.

DECOMPOSITION PRODUCTS:  
CARBON MONOXIDE, CARBON DIOXIDE, SILICON AND CHLORIDE COMPOUNDS.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:  
THIS PRODUCT WILL NOT BE COMPATIBLE WITH STRONG OXIDIZERS, LITHIUM ALUMINUM HYDRIDE, AND ALKALINE EARTH HYDROXIDES.

HAZARDOUS POLYMERIZATION:  
A COMPONENT OF THIS PRODUCT, 1,2-BUTYLENE OXIDE, MAY UNDERGO HAZARDOUS POLYMERIZATION. HOWEVER, AT THE CONCENTRATION PRESENT IN THIS MIXTURE, POLYMERIZATION IS NOT EXPECTED TO PRESENT A SIGNIFICANT HAZARD.

CONDITIONS TO AVOID:  
AVOID EXPOSURE OR CONTACT TO EXTREME TEMPERATURES, SOURCES OF IGNITION, INCOMPATIBLE CHEMICALS.

PART IV: IS THERE ANY OTHER USEFUL INFORMATION ABOUT THIS MATERIAL?

#### -----11. TOXICOLOGICAL INFORMATION -----

TOXICITY DATA:  
THE SPECIFIC TOXICOLOGY DATA AVAILABLE FOR COMPONENTS GREATER THAN 1% IN CONCENTRATION ARE AS FOLLOWS.

CYCLOHEXANONE:

EYE EFFECTS-HUMAN: 75 PPM

SKIN-RABBIT, ADULT: 500 MG OPEN MILD IRRITATION EFFECTS

EYE EFFECTS-RABBIT, ADULT: 4740 (MICRO)G SEVERE IRRITATION EFFECTS

MICROSOMAL MUTAGENICITY ASSAY-SALMONELLA TYPHIMURIUM: 20 (MICRO)L/L

MUTATION IN MICROORGANISMS-BACILLUS SUBTILIS: 200 (MICRO)L/L

SISTER CHROMATID EXCHANGE-HAMSTER: OVARY 7500 (MICRO)L/L

ORAL-MOUSE TDLO:  
11 G/KG (FEMALE 8-12D POST): REPRODUCTIVE EFFECTS

INHALATION-HUMAN TCLO:  
75 PPM: NOSE, EYE EFFECTS, PULMONARY SYSTEM EFFECTS

ORAL-RAT LD50: 1535 MG/KG

INHALATION-RAT LC50: 8000 PPM/4 HOURS

SUBCUTANEOUS-RAT LD50: 2170 MG/KG

ORAL-MOUSE LD50: 1400 MG/KG

INTRAPERITONEAL-MOUSE LD50: 1350 MG/KG

SUBCUTANEOUS-MOUSE LDLO: 1300 MG/KG

INTRAVENOUS-DOG, ADULT LDLO: 630 MG/KG

ORAL-RABBIT, ADULT LDLO: 1600 MG/KG

SKIN-RABBIT, ADULT LD50: 948 MG/KG

TCLO - INHALATION - RAT:

105 MG/M3/4 HOURS:

FEMALE 1-20 DAY(S) AFTER CONCEPTION:  
REPRODUCTIVE - FERTILITY - PRE-IMPLANTATION MORTALITY

TDLO - ORAL - MOUSE:

11 GM/KG:

FEMALE 8-12 DAY(S) AFTER CONCEPTION:  
REPRODUCTIVE - EFFECTS ON NEWBORN - GROWTH STATISTICS (E.G.%, REDUCED WEIGHT GAIN)

MUTATION IN MICROORGANISMS:  
BACTERIA - SALMONELLA TYPHIMURIUM: 20 (MICRO)L/L

MUTATION IN MICROORGANISMS - BACTERIA - BACILLUS SUBTILIS 200 (MICRO)L/L

CYTOGENETIC ANALYSIS:  
HUMAN LEUKOCYTE: 100 (MICRO)MOL/L

CYTOGENETIC ANALYSIS:  
HUMAN LYMPHOCYTE: 5 (MICRO)G/L

SISTER CHROMATID EXCHANGE:  
RODENT - HAMSTER OVARY: 7500 (MICRO)L/L

MUTATION IN MAMMALIAN SOMATIC:  
RODENT - HAMSTER OVARY: 7500 (MICRO)L/L

METHYL ETHYL KETONE:

EYE EFFECTS-HUMAN: 350 PPM

SKIN-RABBIT, ADULT: 500 MG/24 HOURS; MODERATE IRRITATION EFFECTS

SKIN-RABBIT, ADULT: 402 MG/24 HOURS; MILD IRRITATION EFFECTS

SKIN-RABBIT, ADULT: 13,780 MG/24H OPEN MILD IRRITATION EFFECTS

EYE EFFECTS-RABBIT, ADULT: 80 MG

SEX CHROMOSOME LOSS AND NONDISJUNCTION - SACCHAROMYCES CEREVISIAE; 33,800 PPM

INHALATION-RAT TCLO:  
1000 PPM/(6-15D PREG): TERATOGENIC EFFECTS

INHALATION-HUMAN TCLO:  
100 PPM / 5 MINUTES: IRRITANT EFFECTS

ORAL-RAT LD50: 2737 MG/KG

INHALATION-RAT LC50: 23,500 MG/M3/8 HOURS

INTRAPERITONEAL-RAT LD50: 607 MG/KG

ORAL-MOUSE LD50: 4050 MG/KG

INHALATION-MOUSE LC50: 40 G/M3/2 HOURS

INTRAPERITONEAL-MOUSE LD50: 616 MG/KG

SKIN-RABBIT, ADULT LD50: 6450 MG/KG

INTRAPERITONEAL-GUINEA PIG, ADULT LDLO: 2 G/KG

INHALATION-UNSPECIFIED EFFECTS LC50: 38 G/M3

INHALATION-RAT TCLO: 5000 PPM/6H/90 DAYS - INTERMITTENT

TDLO - SUBCUTANEOUS - CAT:

55500 MG/KG/37 WEEKS - INTERMITTENT:  
REPRODUCTIVE - TUMORIGENIC EFFECTS - OTHER REPRODUCTIVE SYSTEM TUMORS

TCLO - INHALATION - RAT:

3000 PPM/7 HOURS:

FEMALE 6-15 DAY(S) AFTER CONCEPTION:  
REPRODUCTIVE - SPECIFIC DEVELOPMENTAL ABNORMALITIES - CRANIOFACIAL (INCLUDING NOSE AND TONGUE), UROGENITAL SYSTEM, HOMEOSTASIS

TCLO - INHALATION - RAT:

1000 PPM/7 HOURS:

FEMALE 6-15 DAY(S) AFTER CONCEPTION:  
REPRODUCTIVE - EFFECTS ON EMBRYO OR FETUS - FETOTOXICITY (EXCEPT DEATH, E.G., STUNTED FETUS) REPRODUCTIVE - SPECIFIC DEVELOPMENTAL ABNORMALITIES - MUSCULOSKELETAL SYSTEM

TCLO - INHALATION - MOUSE:

3000 PPM/7H:

FEMALE 6-15 DAY(S) AFTER CONCEPTION:  
REPRODUCTIVE - EFFECTS ON EMBRYO OR FETUS - FETOTOXICITY

CHLORINATED POLYVINYL CHLORIDE RESIN:  
CURRENTLY, THERE ARE NO TOXICOLOGY DATA AVAILABLE FOR THIS COMPONENT OF THE PRODUCT.

SILICON DIOXIDE:  
UNSCHEDULED DNA SYNTHESIS-RAT-INTRATRACHEAL 120 MG/KG  
BODY FLUID ASSAY-RAT: LUNG 120 MG/KG

INHALATION-RAT TCLO:

50 MG/M3/6 HOURS/2 YEARS - INTERMITTENT:

RAT LD50: 3160 MG/KG  
PERITONEAL-RAT LDLO: 50 MG/KG  
INTRAPERITONEAL-RAT LD50: 15 MG/KG  
INTRATRACHEAL-RAT LDLO: 10 MG/KG

TETRAHYDROFURAN:

MUTATION IN MICROORGANISMS-ESCHERICHIA COLI 1: (MICRO)MOL/L

INHALATION-HUMAN TCLO:  
25,000 PPM: CENTRAL NERVOUS SYSTEM EFFECTS

ORAL-RAT LD50: 1650 MG/KG.

INHALATION-RAT LC50: 21,000 PPM/3H

INTRAPERITONEAL-RAT LD50: 2900 MG/KG

INTRAPERITONEAL-GUINEA PIG, ADULT LDLO: 500 MG/KG

INHALATION-RAT TCLO: 5000 PPM/6 HOURS/91 DAYS - INTERMITTENT

TCLO - INHALATION - RAT:

5000 PPM/6H:

FEMALE 6-19 DAY(S) AFTER CONCEPTION:  
REPRODUCTIVE - EFFECTS ON EMBRYO OR FETUS - FETOTOXICITY

TCLO - INHALATION - MOUSE:

1800 PPM/6H:

FEMALE 6-17 DAY(S) AFTER CONCEPTION:  
REPRODUCTIVE - FERTILITY - POST-IMPLANTATION MORTALITY

MUTATION IN MICROORGANISMS:  
BACTERIA - ESCHERICHIA COLI: 1 (MICRO)MOL/L

INHALATION-MOUSE LCLO: 24,000 MG/M3/2 HOURS

INTRAPERITONEAL-MOUSE LD50: 1900 MG/KG

SUSPECTED CANCER AGENT:

COMPONENTS OF THIS PRODUCTS ARE LISTED AS FOLLOWS:

1,2-BUTYLENE OXIDE:  
IARC-3: NOT CLASSIFIABLE AS A HUMAN CARCINOGEN.  
MAK-B: JUSTIFIABLY SUSPECTED OF HAVING CARCINOGENIC POTENTIAL.

CYCLOHEXANONE:  
IARC-3: NOT CLASSIFIABLE AS A HUMAN CARCINOGEN.  
MAK-B: JUSTIFIABLY SUSPECTED OF HAVING CARCINOGENIC POTENTIAL.

POLYVINYL CHLORIDE RESIN:  
IARC-3: NOT CLASSIFIABLE AS A HUMAN CARCINOGEN.

SILICON DIOXIDE:  
IARC-3: NOT CLASSIFIABLE AS A HUMAN CARCINOGEN.

METHYL ETHYL KETONE:  
EPA-D: NOT CLASSIFIABLE AS TO HUMAN CARCINOGENICITY.

THIS PRODUCT'S COMPONENTS ARE NOT FOUND ON THE FOLLOWING LISTS:  
FEDERAL OSHA Z LIST, NTP, IARC, AND CAL/OSHA AND THEREFORE ARE NEITHER  
CONSIDERED TO BE NOR SUSPECTED TO BE CANCER-CAUSING AGENTS BY THESE  
AGENCIES.

IRRITANCY OF PRODUCT:  
THIS PRODUCT IS EXPECTED TO MILDLY TO SEVERELY IRRITATING THE SKIN AND EYES.

SENSITIZATION TO THE PRODUCT:  
NO COMPONENT OF THIS PRODUCT IS KNOWN TO BE A SENSITIZER WITH PROLONGED OR  
REPEATED USE.

REPRODUCTIVE TOXICITY INFORMATION:  
LISTED BELOW IS INFORMATION CONCERNING THE EFFECTS OF THIS PRODUCT AND ITS  
COMPONENTS ON THE HUMAN REPRODUCTIVE SYSTEM.

MUTAGENICITY:  
THIS PRODUCT IS NOT REPORTED TO PRODUCE MUTAGENIC EFFECTS IN HUMANS. HUMAN  
MUTATION DATA ARE AVAILABLE FOR CYCLOHEXANONE (A COMPONENT OF THIS PRODUCT);  
THESE DATA WERE OBTAINED ON SPECIFIC HUMAN TISSUES EXPOSED TO RELATIVELY  
HIGH DOSES. ANIMAL MUTATION DATA ARE AVAILABLE FOR METHYL ETHYL KETONE,  
SILICON DIOXIDE, AND TETRAHYDROFURAN (COMPONENTS OF THIS PRODUCT); THESE  
DATA WERE OBTAINED DURING CLINICAL STUDIES ON SPECIFIC ANIMAL TISSUES OR  
MICRO-ORGANISMS EXPOSED TO HIGH DOSES OF THESE COMPOUNDS.

EMBRYOTOXICITY:  
THIS PRODUCT IS NOT REPORTED TO PRODUCE EMBRYOTOXIC EFFECTS IN HUMANS.

TERATOGENICITY:  
THIS PRODUCT IS NOT REPORTED TO CAUSE TERATOGENIC EFFECTS IN HUMANS. THREE  
ANIMAL STUDIES INVOLVING METHYL ETHYL KETONE (A COMPONENT OF THIS PRODUCT)  
HAVE SHOWN FETOTOXICITY (SKELETAL ANOMALIES) AT DOSES WHICH DID NOT PRODUCE  
SIGNIFICANT MATERNAL TOXICITY.

REPRODUCTIVE TOXICITY:  
THIS PRODUCT IS NOT REPORTED TO CAUSE REPRODUCTIVE EFFECTS IN HUMANS.  
REPRODUCTIVE TOXICITY DATA ARE AVAILABLE FOR 1,2-BUTYLENE OXIDE, METHYL  
ETHYL KETONE AND TETRAHYDROFURAN (COMPONENTS OF THIS PRODUCT); THESE DATA  
WERE OBTAINED FROM CLINICAL STUDIES ON TEST ANIMALS EXPOSED TO RELATIVELY  
HIGH DOSES.

A MUTAGEN IS A CHEMICAL WHICH CAUSES PERMANENT CHANGES TO GENETIC MATERIAL  
(DNA) SUCH THAT THE CHANGES WILL PROPAGATE THROUGH GENERATIONAL LINES. AN

EMBRYOTOXIN IS A CHEMICAL WHICH CAUSES DAMAGE TO A DEVELOPING EMBRYO (I.E.  
WITHIN THE FIRST EIGHT WEEKS OF PREGNANCY IN HUMANS), BUT THE DAMAGE DOES  
NOT PROPAGATE ACROSS GENERATIONAL LINES. A TERATOGEN IS A CHEMICAL WHICH  
CAUSES DAMAGE TO A DEVELOPING FETUS, BUT THE DAMAGE DOES NOT PROPAGATE  
ACROSS GENERATIONAL LINES. A REPRODUCTIVE TOXIN IS ANY SUBSTANCE WHICH  
INTERFERES IN ANY WAY WITH THE REPRODUCTIVE PROCESS.

ACGIH BIOLOGICAL EXPOSURE INDICES:

CURRENTLY, THERE ARE ACGIH BIOLOGICAL EXPOSURE INDICES (BEIS) ASSOCIATED  
3N2D9

CHEMICAL DETERMINANT	SAMPLING TIME	BEI
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METHYL ETHYL KETONE (MEK)		
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MEK IN URINE	END OF SHIFT	2 MG/L
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TETRAHYDROFURAN (INTENDED)		
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TETRAHYDROFURAN IN URINE	END OF SHIFT	8 MG/L
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MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:  
PREEXISTING RESPIRATORY PROBLEMS, DERMATITIS, AND OTHER SKIN DISORDERS, AS  
WELL AS CONDITIONS INVOLVING THE "TARGET ORGANS" (SEE SECTION 3, HAZARD  
IDENTIFICATION) CAN BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

RECOMMENDATIONS TO PHYSICIANS:  
TREAT SYMPTOMS AND ELIMINATE OVEREXPOSURE. IF NECESSARY, REVIEW FOR BRAIN  
AND CENTRAL NERVOUS SYSTEM EFFECTS AND CONDUCT PULMONARY FUNCTION TEST.  
OTHER TESTS FOR LUNG, KIDNEY, AND LIVER EFFECTS MAY ALSO PROVE USEFUL.

## -----12. ECOLOGICAL INFORMATION -----

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL STABILITY:  
THE COMPONENTS OF THIS PRODUCT WILL BIODEGRADE INTO OTHER ORGANIC COMPOUNDS.

ENVIRONMENTAL DATA ARE AVAILABLE FOR COMPONENTS OF THIS PRODUCT, AS FOLLOWS:

1,2-BUTYLENE OXIDE:  
LOG KOW = 0.26.  
WATER SOLUBILITY = 82,400 MG/L.

CYCLOHEXANONE:

KOC - 0.81.

WATER SOLUBILITY 23,000 MG/L.

CYCLOHEXANONE IS NOT RAPIDLY VOLATILIZED FROM WATER, EXCEPT FOR FAST MOVING  
STREAMS OR VERY SHALLOW PONDS. SIGNIFICANT SOIL LEACHING OCCURS,  
CONTRIBUTING TO GROUND WATER CONTAMINATION. BIODEGRADATION AND PHOTOLYSIS  
OCCUR IN WATER. RAPID ATMOSPHERIC DEGRADATION OCCURS VIA PHOTOLYSIS, WITH A  
HALF-LIFE OF ABOUT 1 TO 5 DAYS.

METHYL ETHYL KETONE:

LOG KOW = 0.29.

WATER SOLUBILITY = 239,000 MG/L.

METHYL ETHYL KETONE IS RAPIDLY VOLATILIZED FROM WATER AND UNDERGOES SLOW  
BIODEGRADATION. IT UNDERGOES MODERATE ATMOSPHERIC PHOTODEGRADATION.

TETRAHYDROFURAN:

WATER SOLUBILITY = 30% (25 DEG. C).

TETRAHYDROFURAN IS SIGNIFICANTLY BIODEGRADED IN STANDARD TESTS. THIS  
COMPOUND IS NOT EXPECTED TO BIOCONCENTRATE IN FISH SIGNIFICANTLY.

EFFECT OF MATERIAL ON PLANTS OR ANIMALS:  
THIS PRODUCT CAN BE HARMFUL OR FATAL TO CONTAMINATED PLANT OR ANIMAL LIFE,  
ESPECIALLY IF RELEASED IN LARGE QUANTITIES INTO THE ENVIRONMENT. REFER TO  
SECTION 11 (TOXICOLOGICAL INFORMATION) FOR INFORMATION REGARDING THE EFFECT  
OF THIS PRODUCT'S COMPONENTS ON TEST ANIMALS.

EFFECT OF CHEMICAL ON AQUATIC LIFE:  
THIS PRODUCT CAN BE HARMFUL OR FATAL TO CONTAMINATED AQUATIC PLANT OR ANIMAL  
LIFE, ESPECIALLY IF RELEASED IN LARGE QUANTITY IN A BODY OF WATER.

THE FOLLOWING AQUATIC TOXICITY DATA ARE AVAILABLE FOR THE COMPONENTS OF THIS  
PRODUCT:

CYCLOHEXANONE:  
LC50 (PIMEPHALES PROMELAS FATHEAD MINNOW): 527 MG/L 96 HOURS  
EC0 (BACTERIA PSEUDOMONAS PUTIDA) 16 HOURS: 180 MG/L  
EC0 (ALGAE MICROCYSTIS AERUGINOSA) 8 DAYS: 52 MG/L  
EC0 (GREEN ALGAE SCENEDESMUS QUADRICAUDA) 7 DAYS: 370 MG/L  
EC0 (PROTOZOA ENTOSIPHON SULCATUM) 72 HOURS: 545 MG/L  
EC0 (PROTOZOA URONEMA PARDUCZI CHATTON-LWOFF): 280 MG/L  
EC0 (BACTERIA PSEUDOMONAS FLUORESCENS) 16 HOURS: 180 MG/L (pH = 7)  
EC0 (CHILOMONAS PARAMECIUM EHRENBERG) 48 HOURS: 573 MG/L  
EC0 (DAPHNIA MAGNA STRAUS) 24 HOURS: 526 MG/L  
EC50 (DAPHNIA MAGNA STRAUS) 24 HOURS: 820 MG/L  
EC100 (DAPHNIA MAGNA STRAUS) 24 HOURS: 1,240 MG/L  
EC0 (DAPHNIA MAGNA) 24 HOURS: 540 MG/L  
EC50 (DAPHNIA MAGNA) 24 HOURS: 800 MG/L  
EC100 (DAPHNIA MAGNA) 24 HOURS: 1,540 MG/L  
LC50 (FATHEAD MINNOW) 96 HOURS: 526; 618; 630 MG/L  
LC50 (LEUCISCUS IDUS) 24 HOURS: 538 MG/L  
LC50 (LEUCISCUS IDUS) 96 HOURS: 536; 539; 752 MG/L

METHYL ETHYL KETONE:  
EC0 (SCENEDESMUS QUADRICAUDA, GREEN ALGAE): 4300 MG/L / 8 DAYS  
EC0 (ENTOSIPHON SULCATUM, PROTOZOA): 190 MG/L / 72 HOURS  
EC0 (URONEMA PARDUCZI CHATTON-LWOFF, PROTOZOA): 2830 MG/L  
EC0 (PSEUDOMONAS PUTIDA, BACTERIA): 1150 MG/L / 16 HOURS  
LC50 (PIMEPHALES PROMELAS, FATHEAD MINNOW): 3200 MG/L/96 HOUR  
LD0 (PSEUDOMONAS, BACTERIA): 2,500 MG/L  
LD0 (SCENEDESMUS, ALGAE): 12,500 MG/L  
LD0 (COLPODA, PROTOZOA): 5,000 MG/L  
LC50 (MOSQUITO FISH): 5,600 MG/L / 24-96 HOURS  
LC50 (BLUEGILL): 5,640-1,690 MG/L / 24-96 HOURS  
LC50 (GOLDFISH): 5,000 MG/L / 24 HOURS

ADDITIONAL CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS:  
THE COMPONENTS OF THIS PRODUCT ARE ON THE DSL INVENTORY.

OTHER CANADIAN REGULATIONS: NOT APPLICABLE.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LIST:  
THE COMPONENTS OF THIS PRODUCT ARE NOT ON THE CEPA PRIORITIES SUBSTANCES LIST

CANADIAN WHMIS SYMBOLS:  
CLASS B2: FLAMMABLE LIQUID  
CLASS D2A/B: MATERIALS CAUSING OTHER TOXIC EFFECTS

EUROPEAN COMMUNITY INFORMATION:

EUROPEAN COMMUNITY INFORMATION FOR PRODUCT:

EC LABELING AND CLASSIFICATION:  
BASED ON THE INFORMATION ON THE PRODUCT'S COMPONENTS AND AN ASSESSMENT OF THE PHYSICAL AND HEALTH HAZARDS ASSOCIATED WITH THE MATERIAL, THE FOLLOWING 3N2D9

EC CLASSIFICATION:  
HIGHLY FLAMMABLE  
CARCINOGENIC CATEGORY 3  
HARMFUL  
IRRITANT. (F; CARC.CAT.3; Xn; Xi)

EC RISK PHRASES:  
HIGHLY FLAMMABLE. MAY FORM EXPLOSIVE PEROXIDES. IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. POSSIBLE RISK OF IRREVERSIBLE EFFECTS (R:11-19-36/37/38-40)

EC SAFETY PHRASES:  
KEEP OUT OF REACH OF CHILDREN.\* KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING. DO NOT EMPTY INTO DRAINS. DO NOT BREATHE VAPORS. AVOID CONTACT WITH THE EYES. TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES, WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES. (S:(2-)\*16-23-25-29-33, 36/37)  
\*THIS SAFETY PHRASE CAN BE OMITTED FROM THE LABEL WHEN THE SUBSTANCE OR PREPARATION IS SOLD FOR INDUSTRIAL USE ONLY.

EUROPEAN COMMUNITY ANNEX II HAZARD SYMBOLS:  
EXTREMELY OR HIGHLY FLAMMABLE  
HARMFUL OR IRRITANT

EUROPEAN COMMUNITY INFORMATION FOR CONSTITUENTS:  
THE FOLLOWING INFORMATION IS AVAILABLE FOR PRIMARY CONSTITUENTS IN THE COMPONENTS OF THIS PRODUCT.

1,2-BUTYLENE OXIDE:

EC CLASSIFICATION:  
HIGHLY FLAMMABLE  
CARCINOGENIC CATEGORY 3  
HARMFUL  
IRRITANT. (F; CARC.CAT.3; Xn; Xi)

EC RISK PHRASES:  
HIGHLY FLAMMABLE. HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. POSSIBLE RISK OF IRREVERSIBLE EFFECTS. (R:11-20/21/22-36/37/38-40)

EC SAFETY PHRASES:  
KEEP OUT OF REACH OF CHILDREN.\* KEEP CONTAINER IN A WELL VENTILATED PLACE. KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING. DO NOT EMPTY INTO DRAINS. WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES. (S:(2-)\*9-16-29-36/37) \*THIS SAFETY PHRASE CAN BE OMITTED FROM THE LABEL WHEN THE SUBSTANCE OR PREPARATION IS SOLD FOR INDUSTRIAL USE ONLY.

CYCLOHEXANONE:

EC CLASSIFICATION: FLAMMABLE. HARMFUL. (F; Xn)

EC RISK PHRASES: FLAMMABLE. HARMFUL BY INHALATION. (R: 10-20).

EC SAFETY PHRASES:  
KEEP OUT OF REACH OF CHILDREN.\* AVOID CONTACT WITH THE EYES.(S:(2-)\* 25).  
\*THIS SAFETY PHRASE CAN BE OMITTED FROM THE LABEL WHEN THE SUBSTANCE OR PREPARATION IS SOLD FOR INDUSTRIAL USE ONLY.

EC COMMENTS:

CONCENTRATION GREATER THAN OR EQUAL TO 25%:  
HARMFUL. HARMFUL BY INHALATION. (Xn; R20). THIS PRODUCT CONTAINS LESS THAN THIS CONCENTRATION; THEREFORE, THIS RISK HAS BEEN OMITTED.

METHYL ETHYL KETONE:

EC CLASSIFICATION: HIGHLY FLAMMABLE. IRRITANT. (F; Xi)

EC RISK PHRASES:  
HIGHLY FLAMMABLE. IRRITATING TO THE EYES AND RESPIRATORY SYSTEM. (R: 11-36/37).

EC SAFETY PHRASES:  
KEEP OUT OF REACH OF CHILDREN.\* KEEP CONTAINER IN A WELL-VENTILATED PLACE. KEEP AWAY FROM SOURCES OF IGNITION. NO SMOKING. AVOID CONTACT WITH THE EYES. TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES. (S: (2-)\*9-16-25-33).  
\*THIS SAFETY PHRASE CAN BE OMITTED FROM THE LABEL WHEN THE SUBSTANCE OR PREPARATION IS SOLD FOR INDUSTRIAL USE ONLY.

CHLORINATED POLYVINYL CHLORIDE:  
AN OFFICIAL CLASSIFICATION FOR THIS SUBSTANCE HAS NOT BEEN PUBLISHED IN COMMISSION DIRECTIVES 93/72/EEC, 94/69/EC, AND 96/54/EC.

ANTHRACENE DIOXIDE:  
AN OFFICIAL CLASSIFICATION FOR THIS SUBSTANCE HAS NOT BEEN PUBLISHED IN COMMISSION DIRECTIVES 93/72/EEC, 94/69/EC, AND 96/54/EC.

TETRAHYDROFURAN:

EC CLASSIFICATION: HIGHLY FLAMMABLE. IRRITANT. (F; Xi)

EC RISK PHRASES:  
HIGHLY FLAMMABLE. MAY FORM EXPLOSIVE PEROXIDES. IRRITATING TO EYES AND

RESPIRATORY SYSTEM. (R:11-19-36/37)

EC SAFETY PHRASES:  
KEEP OUT OF REACH OF CHILDREN.\* KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING. DO NOT EMPTY INTO DRAINS. TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES. (S:(2-)\*16-29-33) \*THIS SAFETY PHRASE CAN BE OMITTED FROM THE LABEL WHEN THE SUBSTANCE OR PREPARATION IS SOLD FOR INDUSTRIAL USE ONLY.

EC COMMENTS:

CONCENTRATIONS > OR EQUAL TO 25 PERCENT:  
IRRITANT. IRRITATING TO EYES AND RESPIRATORY SYSTEM. (Xi; R36/37)

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

PREPARED BY:  
CHEMICAL SAFETY ASSOCIATES, INC.

EDITED/UPDATED BY: JOHN BROWN, E-Z WELD, INC

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THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. COOKSON ASSUMES NO RESPONSIBILITY FOR INJURY TO THE VENDEE OR THIRD PERSONS PROXIMATELY CAUSED BY THE MATERIAL IF REASONABLE SAFETY PROCEDURES ARE NOT ADHERED TO AS STIPULATED IN THE DATA SHEET. ADDITIONALLY, COOKSON ASSUMES NO RESPONSIBILITY FOR INJURY TO VENDEE OR THIRD PERSONS PROXIMATELY CAUSED BY ABNORMAL USE OF THE MATERIAL EVEN IF REASONABLE SAFETY PROCEDURES ARE FOLLOWED. FURTHERMORE, VENDEE ASSUMES THE RISK IN HIS USE OF THE MATERIAL.