



SynQuest Laboratories, Inc.

PO Box 309, Alachua, FL 32616-0309

Tel. 386/462-0788; FAX 386/462-7097

Material Safety Data Sheet

Transportation Emergency: 1-800-451-8346

Date last revised: January 9, 2015

Date printed: January 9, 2015

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

CATALOG #: 1100-5-16EE

NAME: CHLOROMETHANE, 1M IN DIETHYL ETHER

SYNONYM: METHYL CHLORIDE

SECTION 2. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

DIETHYL ETHER

CAS-NO. 60-29-7

90 - 100 %

CHLOROMETHANE

CAS-NO. 74-87-3

5 - 10 %

SECTION 3. ----- HAZARDS IDENTIFICATION -----

LABEL PRECAUTIONARY STATEMENTS

EXTREMELY FLAMMABLE LIQUID AND VAPOR.

HARMFUL.

HARMFUL IF SWALLOWED.

IRRITANT.

CAUSES EYE IRRITATION.

MAY CAUSE DROWSINESS OR DIZZINESS.

SUSPECTED OF CAUSING CANCER.

SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.

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

IF INHALED

IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.

IN CASE OF SKIN CONTACT

WASH OFF WITH SOAP AND PLENTY OF WATER. CONSULT A PHYSICIAN.

IN CASE OF EYE CONTACT

RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND CONSULT A PHYSICIAN.

IF SWALLOWED

RINSE MOUTH WITH WATER. DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONCIOUS PERSON. CONSULT A PHYSICIAN.

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

FLASH POINT

40 °C CLOSED UP

SUITABLE EXTINGUISHING MEDIA

USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE.

DECOMPOSITION PRODUCTS

CARBON OXIDES, HYDROGEN CHLORIDE GAS

ADVICE FOR FIREFIGHTERS

WEAR SELF CONTAINED BREATHING APPARATUS FOR FIRE FIGHTING IF NECESSARY.

FURTHER INFORMATION

USE WATER SPRAY TO COOL UNOPENED CONTAINERS.

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

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

USE PERSONAL PROTECTIVE EQUIPMENT. AVOID BREATHING VAPORS, MIST OR GAS.

ENSURE ADEQUATE VENTILATION. REMOVE ALL SOURCES OF IGNITION. EVACUATE PERSONNEL TO SAFE AREAS. BEWARE OF VAPORS ACCUMULATING TO FORM EXPLOSIVE CONCENTRATIONS. VAPORS CAN ACCUMULATE IN LOW AREAS.

FOR PERSONAL PROTECTION SEE SECTION 8.

ENVIRONMENTAL PRECAUTIONS

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

CONTAIN SPILLAGE, AND THEN COLLECT WITH AN ELECTRICALLY PROTECTED VACUUM CLEANER OR BY WET-BRUSHING AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS (SEE SECTION 13).

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

PRECAUTIONS FOR SAFE HANDLING

AVOID CONTACT WITH SKIN AND EYES. AVOID INHALATION OF VAPOR OR MIST.

USE EXPLOSION-PROOF EQUIPMENT. KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING. TAKE MEASURES TO PREVENT THE BUILD UP OF ELECTROSTATIC CHARGE.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE.

CONTAINERS WHICH ARE OPENED MUST BE CAREFULLY RESEALED AND KEPT UPRIGHT TO PREVENT LEAKAGE. RECOMMENDED STORAGE TEMPERATURE: 2 - 8 °C

LIGHT SENSITIVE. AIR SENSITIVE. HEAT SENSITIVE. DRY RESIDUE IS EXPLOSIVE.

REFRIGERATE BEFORE OPENING.

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

DIETHYL ETHER

TWA 400 PPM USA. ACGIH THRESHOLD LIMIT VALUES (TLV)

STEL 500 PPM USA. ACGIH THRESHOLD LIMIT VALUES (TLV)

TWA 400 PPM - 1,200 mg/m³ USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1

TWA 400 PPM - 1,200 mg/m³ USA. OSHA - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS

STEL 500 PPM - 1,500 mg/m³ USA. OSHA - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS

CHLOROMETHANE

TWA 50 PPM USA. ACGIH THRESHOLD LIMIT VALUES (TLV)

STEL 100 PPM USA. ACGIH THRESHOLD LIMIT VALUES (TLV)

TWA 100 PPM USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z2 Z37.18-1969

CEIL 200 PPM USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z2 Z37.18-1969

PEAK 300 PPM USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z2 Z37.18-1969

STEL 100 PPM - 205 mg/m³ USA. OSHA - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS

TWA 50 PPM - 105 mg/m³ USA. OSHA - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS

RESPIRATORY PROTECTION

WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE

USE A FULL-FACE RESPIRATOR WITH MULTIPURPOSE COMBINATION (US) OR TYPE

ABEK (EN 14387) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS.

IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED

AIR RESPIRATOR. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER

APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).

HAND PROTECTION

HANDLE WITH GLOVES.

EYE PROTECTION

SAFETY GLASSES

SKIN AND BODY PROTECTION

CHOOSE BODY PROTECTION ACCORDING TO THE AMOUNT AND CONCENTRATION OF

THE DANGEROUS SUBSTANCE AT THE WORK PLACE.

HYGIENE MEASURES

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE.

WASH HANDS BEFORE BREAKS AND AT THE END OF WORKDAY.

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

APPEARANCE

LIQUID

PHYSICAL PROPERTIES

DENSITY: 0.742 g/mL @ 25 °C

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

CHEMICAL STABILITY

STABLE UNDER RECOMMENDED STORAGE CONDITIONS.

POSSIBILITY OF HAZARDOUS REACTIONS

VAPORS MAY FORM EXPLOSIVE MIXTURE WITH AIR.

CONDITIONS TO AVOID

HEAT, FLAMES AND SPARKS. EXTREMES OF TEMPERATURE AND DIRECT SUNLIGHT.

INCOMPATIBLE MATERIALS

OXIDIZING AGENTS, STRONG OXIDIZING AGENTS, IRON, STRONG ACIDS

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

SIGNS AND SYMPTOMS OF EXPOSURE

METHYL CHLORIDE IS RAPIDLY ABSORBED THROUGH THE LUNGS AND IS EXCRETED VERY SLOWLY FROM THE BODY. SYMPTOMS OF EXPOSURE INCLUDE: DIZZINESS, HEADACHE, WEAKNESS, UNSTEADY WALK, NAUSEA, VOMITING, ABDOMINAL PAIN, EXTREME NERVOUSNESS, MENTAL CONFUSION, TREMORS, CONVULSIONS, UNCONSCIOUSNESS AND DEATH, DAMAGE TO THE CENTRAL NERVOUS SYSTEM. APPARENT RECOVERY FROM A SEEMINGLY MINOR EXPOSURE VIA INHALATION MAY BE FOLLOWED BY SERIOUS AND PROLONGED AFTEREFFECTS WITHIN A FEW DAYS OR WEEKS WHICH CAN BE FATAL. REPEATED EXPOSURES TO METHYL CHLORIDE ARE DANGEROUS BECAUSE IT IS ELIMINATED VERY SLOWLY FROM THE BODY WHICH CONVERTS METHYL CHLORIDE INTO HYDROCHLORIC ACID AND METHYL ALCOHOL. CONTACT WITH EYES CAN CAUSE REDNESS, BLURRED VISION, PROVOKES TEARS. PROLONGED OR REPEATED CONTACT WITH SKIN MAY CAUSE DEFATTING, DERMATITIS. COUGH, CHEST PAIN, DIFFICULTY IN BREATHING, DIZZINESS, DROWSINESS.

LIVER - IRREGULARITIES - BASED ON HUMAN EVIDENCE

STOMACH - IRREGULARITIES - BASED ON HUMAN EVIDENCE

LIVER - INGESTION MAY PROVOKE THE FOLLOWING SYMPTOMS:, IRREGULARITIES - BASED ON HUMAN EVIDENCE (DIETHYL ETHER)

STOMACH - IRREGULARITIES - BASED ON HUMAN EVIDENCE (CHLOROMETHANE)

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

DATA NOT AVAILABLE.

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

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.

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

UN1993 - HC 3 - PG I

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

EU ADDITIONAL CLASSIFICATION

SYMBOL OF DANGER: F+, Xn

INDICATION OF DANGER: FLAMMABLE LIQUID. HARMFUL.

RISK STATEMENTS: R12,R18,R19,R22,R36,R44,R45,R62,R63,R66,R67

SAFETY STATEMENTS: S9,S16,S23,S24/25,S26,S29,S33,S36/37/39,S38,S45

UNITED STATES REGULATORY INFORMATION

TSCA: NOT LISTED ON TSCA INVENTORY; FOR R&D USE ONLY

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. SYNQUEST LABS, INC. SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.