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METHYLENE CHLORIDE
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MATERIAL SAFETY DATA SHEET

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SUBSTANCE IDENTIFICATION

CAS-NUMBER 75-09-2

SUBSTANCE: **METHYLENE CHLORIDE**

TRADE NAMES/SYNONYMS: METHYLENE CHLORIDE; METHYLENE DICHLORIDE;
METHANE, DICHLORIDE; SOLAESTHIN; NARKOTIL; SOLMETHINE; RCRA U080;
METHANE, DICHLORIDE; UN1593;
STC: 48112; D143; D123; D35; D37; D37SK; D150SK; D143SK; BP1186;
D132; CH2CL2; ACC14930

CHEMICAL FAMILY: HALOGEN COMPOUND, ALIPHATIC

MOLECULAR FORMULA: C-H2-CL2

MOLECULAR WEIGHT: 84.93

CECLA RATINGS (SCALE 0-3): HEALTH=3 FIRE=1 REACTIVITY=0 PERSISTENCE=1
NFPA RATINGS (SCALE 0-4): HEALTH=2 FIRE=1 REACTIVITY=0

COMPONENTS AND CONTAMINANTS

COMPONENT: METHYLENE CHLORIDE PERCENT: 100.0
CAS# 75-09-2

OTHER CONTAMINANTS: NONE

EXPOSURE LIMITS: (METHYLENE CHLORIDE);
DICHLOMETHANE TWA: 1000 PPM OSHA CEILING: 2000 PPM/5 MIN IN 2 HOURS OSHA PEAK
20 PPM (174 MG/M3) ACGIH TWA
ACGIH A2- SUSPECTED HUMAN CARCINOGEN.
LOWEST FEASIBLE LIMIT NIOSH RECOMMENDED EXPOSURE CRITERIA
1000 POUNDS CECLA SECTION 103 REPORTABLE QUANTITY
SUBJECT TO SARA SECTION 313 ANNUAL TOXIC CHEMICAL RELEASE REPORTING
SUBJECT TO CALIFORNIA PROPOSITION 65 CANCER AND/OR REPRODUCTIVE TOXICITY
WARNING AND RELEASE REQUIREMENTS- (APRIL 1, 1988)

PHYSICAL DATA

DESCRIPTION: CLEAR, COLORLESS LIQUID WITH AN MILD, CHLOROFORM-LIKE ODOR
BOILING POINT: 104 F (40 C) MELTING POINT: -139 F (-95 C)
SPECIFIC GRAVITY: 1.3266 VOLATILITY: 100%
VAPOR PRESSURE: 400 MMHG @ 24 C EVAPORATION RATE: (BUTYL ACETATE=1) 27.5
SOLUBILITY IN WATER: 1.32% @ 20 C ODOR THRESHOLD: 25-50 PPM

VAPOR DENSITY: 2.9

SOLVENT SOLUBILITY: SOLUBLE IN ALCOHOL, ETHER, DIMETHYLFORMAMIDE, PHENOLS,
ALDEHYDES, KETONES, GLACIAL ACETIC ACID, TRIETHYL PHOSPHATE, ACETOACETIC ACID,
CYCLOHEXYLAMINE, CHLORINATED SOLVENTS.

VISCOSITY: 0.441 CPS @ 20 C

FIRE AND EXPLOSION DATA

FIRE AND EXPLOSION HAZARD:
SLIGHT FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME.
UPPER EXPLOSIVE LIMIT: 23% LOWER EXPLOSIVE LIMIT: 13%

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AUTOIGNITION TEMP.: 1033 F (556 C) FLAMMABILITY CLASS(09HA): IIIB

FIREFIGHTING MEDIA:

DRY CHEMICAL OR CARBON DIOXIDE
(1990 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.5).

FOR LARGER FIRES, USE WATER SPRAY, FOG OR REGULAR FOAM
(1990 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.5).

FIREFIGHTING: WATER TO SIDES OF CONTAINERS THAT ARE EXPOSED TO FLAMES UNTIL
APPLY COOLING WATER TO OUTSTAY AWAY FROM ENDS OF TANKS. ISOLATE FOR 1/2 MILE IN
WELL AFFECTED AREAS. RAIL CAR OR TANK TRUCK IS INVOLVED IN FIRE (1990
EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.5, GUIDE PAGE 74).

EXTINGUISH USING AGENTS SUITABLE FOR SURROUNDING FIRE. USE FLOODING QUANTITIES
OF WATER TO COOL AFFECTED CONTAINERS, APPLYING FROM AS FAR A DISTANCE AS
POSSIBLE. AVOID BREATHING HAZARDOUS VAPORS, KEEP UNWIND.

TRANSPORTATION DATA

DEPARTMENT OF TRANSPORTATION HAZARD CLASSIFICATION 49 CFR 172.101:

ORM-A

DEPARTMENT OF TRANSPORTATION LABELING REQUIREMENTS 49 CFR 172.101 AND

SUBPART E:

NONE

DEPARTMENT OF TRANSPORTATION PACKAGING REQUIREMENTS: 49 CFR 173.605

EXCEPTIONS: 49 CFR 173.505

TOXICITY

DICHLOROMETHANE (METHYLENE CHLORIDE):

IRRITATION DATA: 162 MG EYE-RABBIT MODERATE; 10 MG EYE-RABBIT MILD;
500 MG/24 HOURS EYE-RABBIT MILD; 810 MG/24 HOURS SKIN-RABBIT SEVERE;

100 MG/24 HOURS SKIN-RABBIT MODERATE.

TOXICITY DATA: 500 PPM/1 YEAR-INTERMITTENT INHALATION-HUMAN TCLO;

500 PPM/8 HOURS INHALATION-HUMAN TCLO; 88000 MG/M3/30 MINUTES
INHALATION-RAT LC50; 14400 PPM/7 HOURS INHALATION-MOUSE LC50;

10000 PPM/7 HOURS INHALATION-RABBIT LD50; 10000 PPM/2 HOURS INHALATION-GUINEA
PIG LCLO; 14108 PPM/2 HOURS INHALATION-CAT LCLO; 357 MG/KG ORAL-HUMAN LDLO; 1600

43400 MG/M3/4 LD50; 1900 MG/KG ORAL-RABBIT LDLO; 3 GM/KG ORAL-DOG LDLO;

2700 MG/KG SUBCUTANEOUS-DOG LDLO; 2700 MG/KG SUBCUTANEOUS-RABBIT LDLO;

918 MG/KG INTRAPERITONEAL-RAT LD50; 950 MG/KG INTRAPERITONEAL-DOG LDLO;

437 MG/KG INTRAPERITONEAL-MOUSE LD50; 4770 MG/KG UNREPORTED-MOUSE LD50;

MUTAGENIC DATA (RTES): REPRODUCTIVE EFFECTS DATA (RTES);

TUMORIGENIC DATA (RTES); ANTICIPATED HUMAN CARCINOGEN (NTP); HUMAN INADEQUATE

EVIDENCE. ANIMAL STUDIES OF BENIGN TUMORS (TAR GROUP-2B). EXPOSURE BY INHALATION

INCREASED THE INCIDENCE OF BENIGN AND MALIGNANT LUNG AND LIVER TUMORS IN

MICE OF EACH SEX; IN MALE RATS, AN INCREASED INCIDENCE OF SARCOMAS

LOCATED IN THE NECK WAS ALSO OBSERVED.

LOCAL EFFECTS: IRRITANT- INHALATION, SKIN, EYE.

TARGET EFFECTS: CENTRAL NERVOUS SYSTEM DEPRESSION; CHEMICAL ASPHYXIA.

AT INCREASED RISK FROM EXPOSURE TO OTHER SOURCES OF CARBON MONOXIDE,

ADDITIONAL OR PHYSICAL ACTIVITY MAY INCREASE THE LEVEL OF CARBOXYHEMOGLOBIN

SMOKE, BLOOD RESULTING IN ADDITIVE EFFECTS. ALCOHOL MAY ENHANCE THE

TOXIC EFFECTS. STIMULANTS SUCH AS EPINEPHRINE MAY INDUCE CARDIAC

ARRHYTHMIA. ONE STUDY INDICATED THAT CHRONIC EXPOSURE MAY BE ASSOCIATED

WITH AN INCREASED RISK OF SPONTANEOUS ABORTION. DICHLOROMETHANE CROSSES

THE PLACENTA AND IS EXCRETED IN BREAST MILK.

HEALTH EFFECTS AND FIRST AID

INHALATION:
DICHLOROMETHANE (METHYLENE CHLORIDE):
IRRITANT/ANESTHETIC/CHEMICAL ASPHYXIA/CARCINOGEN.

ACUTE EXPOSURE TO 100 PPM HAS RESULTED IN UPPER RESPIRATORY
TRACT IRRITATION AND COUGHING. EXPOSURE TO 500 PPM FOR 200 HOURS HAS PRODUCED TEMPORARY
NEUROBEHAVIORAL EFFECTS. 500 PPM FOR 200 HOURS HAS PRODUCED TEMPORARY
LIGHTHEADEDNESS AND ELEVATED CARBOXYHEMOGLOBIN LEVEL. 2300 PPM FOR 30
MINUTES HAS CAUSED NAUSEA AND NARCOSIS. 5000 PPM HAS CAUSED HEADACHE,
FATIGUE, NEURASTHENIC DISORDERS AND DIGESTIVE DISTURBANCES. OTHER
SYMPTOMS MAY INCLUDE DIZZINESS, TINGLING, NUMBNESS OF THE EXTREMITIES,
A SENSATION OF HEAT, A SENSATION OF FULLNESS IN THE HEAD, DRUNKENNESS,
STUPOR, DULLNESS AND MENTAL CONFUSION. MASSIVE EXPOSURE MAY CAUSE
PHARYNGEAL EROSION, PULMONARY EDEMA, STAGGERING, HEMOLYSIS WITH
GROSS HEMATURIA, RAPID UNCONSCIOUSNESS AND DEATH. RECOVERY IS GENERALLY

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COMPLETE IF EXPOSURE IS TERMINATED BEFORE ANESTHETIC DEATH. EXPOSURE TO HIGH LEVELS MAY ALSO CAUSE CARDIAC ARRHYTHMIAS. TO LEVELS BELOW 500 PPM HAVE CHRONIC EXPOSURE - MORE THAN 100 WORKERS EXPOSED TO UPPER RESPIRATORY DEVELOPED HEALTH PROBLEMS AND CORONARY ARTERY DISEASE AND A HIGH INCIDENCE OF NEUROTOXICITY. OF 10 TO 35 PPM. REPEATED HUMAN EXPOSURE TO 500-3600 PPM CONCENTRATIONS OF TOXIC ENCEPHALOPATHY WITH ACUSTICAL AND OPTICAL LESIONS AND HALLUCINATIONS. A CASE OF SERIOUS CEREBRAL DETERIORATION WAS OBSERVED IN AN INDIVIDUAL EXPOSED FOR SEVERAL YEARS TO DICHLOROMETHANE. IN A MORTALITY STUDY OF TWO GROUPS OF WORKERS, ONE EXPOSED TO ACETONE AND THE OTHER TO DICHLOROMETHANE AND ACETONE, THE STATISTICALLY SIGNIFICANT DIFFERENCE IN DEATHS FROM OTHER CAUSES REPORTED FROM THE DICHLOROMETHANE AND ACETONE GROUP. IN ANOTHER MORTALITY STUDY OF WORKERS EXPOSED TO DICHLOROMETHANE AND ACETONE, A SIGNIFICANT INCREASE IN HYPERTENSIVE DISEASE AND A HIGHER INCIDENCE OF PANCREATIC CANCER WERE REPORTED. LIVER AND SPLEEN HAD BEEN REPORTED IN EXPOSED WORKERS. IN ONE STUDY, AN INCREASE IN SPLEEN WEIGHT WAS OBSERVED IN EXPOSED WORKERS, BUT NO OTHER SIGN OF LIVER INJURY OR HEMOLYSIS WAS REPORTED. ADVERSE LIVER EFFECTS WERE OBSERVED IN SEVERAL ANIMAL SPECIES CHEMICALLY EXPOSED. TESTICULAR ATROPHY WAS REPORTED IN MICE EXPOSED TO 4000 PPM OVER 2 YEARS. REPEATED INHALATION BY RODENTS PRIOR TO AND/OR DURING GESTATION CAUSED FETAL SKELETAL ABNORMALITIES AND BEHAVIORAL EFFECTS IN MAMMALS OFFSPRING. REPEATED INHALATION INCREASED THE INCIDENCE OF BENIGN AND MALIGNANT LUNG AND LIVER TUMORS IN MICE OF EACH OF EACH SEX. IN MALE RATS, AN INCREASED INCIDENCE OF SARCOMAS LOCATED IN THE NECK WAS ALSO OBSERVED.

FIRST AID - REMOVE FROM EXPOSURE AREA TO FRESH AIR IMMEDIATELY. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION. MAINTAIN AIRWAY AND BLOOD PRESSURE AND ADMINISTER OXYGEN IF AVAILABLE. KEEP AFFECTED PERSON WARM AND AT REST. TREAT SYMPTOMATICALLY AND SUPPORTIVELY. ADMINISTRATION OF OXYGEN SHOULD BE PERFORMED BY QUALIFIED PERSONNEL. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT: DICHLOROMETHANE (METHYLENE CHLORIDE):

IRRITANT EXPOSURE - MAY CAUSE EFFECTS RANGING FROM MILD IRRITATION TO SEVERE ACUTE EXPOSURE - Prolonged or repeated contact may cause a dry, scaly and fissured dermatitis due to defatting action of liquid on skin.

FIRST AID - REMOVE CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. WASH AFFECTED AREA WITH SOAP OR MILD DETERGENT AND LARGE AMOUNTS OF WATER UNTIL NO EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT: DICHLOROMETHANE (METHYLENE CHLORIDE):

IRRITANT ACUTE EXPOSURE - VAPOR CONCENTRATIONS ABOVE 2000 PPM MAY CAUSE IRRITATION. DIRECT CONTACT MAY CAUSE PAIN AND EXTREME IRRITATION, BUT IT IS NOT LIKELY TO CAUSE SERIOUS INJURY. 10 MG APPLIED TO ROBBINFLAMMATION KERATITIS, IRRITIS, INCREASED CORNEAL THICKNESS LASTING UP TO TWO WEEKS. OF THE CONJUNCTIVA AND EYELIDS WITH NO EFFECTS TO IRRITANTS MAY CAUSE CHRONIC EXPOSURE - REPEATED OR PROLONGED EXPOSURE TO IRRITANTS MAY CAUSE CONJUNCTIVITIS.

FIRST AID - WASH EYES IMMEDIATELY WITH LARGE AMOUNTS OF WATER OR NORMAL SALINE, OCCASIONALLY LIFTING UPPER AND LOWER LIDS, UNTIL NO EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION: DICHLOROMETHANE (METHYLENE CHLORIDE):

ACUTE EXPOSURE - MAY CAUSE RAPID, THEN SLOWED RESPIRATION, GLOTTAL AND PHARYNGEAL EDEMA, LARYNGEAL HEMOLYSIS WITH GROSS HEMATURIA, GASTROINTESTINAL IRRITATION AND HEMORRHAGE, AND CARBOXYHEMOGLOBINEMIA. THESE SYMPTOMS MAY PROGRESS RAPIDLY TO UNCONSCIOUSNESS AND LACK OF RESPONSE TO PAINFUL STIMULI. PHARYNGEAL EROSIONS MAY DISTURB THE

SWALLOWING MECHANISM RESULTING IN ASPIRATION PNEUMONIA. IN ADDITION, SYMPTOMS OF CENTRAL NERVOUS SYSTEM DEPRESSION MAY OCCUR FOLLOWED BY CONVULSIONS AND PARESTHESIA OF THE EXTREMITIES. LARGE DOSES MAY CAUSE GRAVE AND KIDNEY DAMAGE. THE ESTIMATED LETHAL DOSE FOR AN ADULT IS 25 CHROMOPHORE EXPOSURE - REPEATED INGESTION BY RATS AND MICE RESULTED IN HISTOMORPHOLOGICAL CHANGES IN THE LIVER.

FIRST AID - REMOVE BY GASTRIC LAVAGE OR EMESIS. MAINTAIN BLOOD PRESSURE AND AIRWAY. GIVE OXYGEN IF RESPIRATION IS DECREASED. DO NOT PERFORM GASTRIC LAVAGE OR EMESIS IF VICTIM IS UNCONSCIOUS. GET MEDICAL ATTENTION IMMEDIATELY (DREISSACH, HANDBOOK OF POISONING, 11TH ED.). ADMINISTRATION OF GASTRIC LAVAGE OR OXYGEN SHOULD BE PERFORMED BY QUALIFIED MEDICAL PERSONNEL.

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ANTIDOTE:
NO SPECIFIC ANTIDOTE. TREAT SYMPTOMATICALLY AND SUPPORTIVELY.

REACTIVITY

REACTIVITY:
STABLE UNDER NORMAL TEMPERATURES AND PRESSURES.

INCOMPATIBILITIES:

DICHLOROMETHANE (METHYLENE CHLORIDE);
ALKALI METALS: POSSIBLE EXPLOSIVE REACTION.
ALUMINUM: POSSIBLE EXPLOSIVE REACTION.
CAUSTICS (STRONG): VIGOROUS, POSSIBLY VIOLENT REACTION.
COPPER: MAY CORRODE AT ELEVATED TEMPERATURES IN THE PRESENCE OF MOISTURE.
DINITROGEN PENTOXIDE: POSSIBLE SHOCK-SENSITIVE MIXTURE.
DINITROGEN TETROXIDE: ELEVATED TEMPERATURES IN THE PRESENCE OF MOISTURE.
IRON: MAY CORRODE AT ELEVATED TEMPERATURES IN THE PRESENCE OF MOISTURE.
LITHIUM: POSSIBLE EXPLOSIVE REACTION.
MAGNESIUM: MAY CORRODE AT ELEVATED TEMPERATURES IN THE PRESENCE OF MOISTURE.
NITRIC ACID: EXOTHERMIC REACTION YIELDING DETONABLE SOLUTION.
OXIDIZERS (STRONG): FIRE AND EXPLOSION HAZARD.
OXYGEN (LIQUID): EXPLOSIVE REACTION ON IGNITION.
PLASTICS, RUBBER, AND COATINGS: MAY BE ATTACKED.
POTASSIUM: EXPLOSIVE REACTION.
POTASSIUM HYDROXIDE + N-NITROSO UREA: POSSIBLE EXPLOSION.
POTASSIUM TERT-BUTOXIDE: SHOCK-SENSITIVE MIXTURE.
SODIUM: FORMS SHOCK-SENSITIVE MIXTURE.
SODIUM-POTASSIUM ALLOY: FORMS SHOCK-SENSITIVE MIXTURE.
STAINLESS STEEL: MAY CORRODE AT ELEVATED TEMPERATURES IN THE PRESENCE OF MOISTURE.
TITANIUM: POSSIBLE VIOLENT REACTION.
ZINC: POSSIBLE VIOLENT REACTION.

DECOMPOSITION:
THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE TOXIC AND HAZARDOUS PHOSGENE GAS,
TOXIC AND CORROSIVE FUMES OF CHLORIDES, AND OXIDES OF CARBON.

POLYMERIZATION:
HAZARDOUS POLYMERIZATION HAS NOT BEEN REPORTED TO OCCUR UNDER NORMAL
TEMPERATURES AND PRESSURES.

STORAGE AND DISPOSAL

OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS WHEN STORING OR DISPOSING
OF THIS SUBSTANCE. FOR ASSISTANCE, CONTACT THE DISTRICT DIRECTOR OF THE
ENVIRONMENTAL PROTECTION AGENCY.

STORAGE

PROTECT AGAINST PHYSICAL DAMAGE. STORE IN COOL, DRY, WELL VENTILATED
LOCATION, AWAY FROM ANY AREA WHERE THE FIRE HAZARD MAY BE ACUTE (NFPA 49,
HAZARDOUS CHEMICALS DATA, 1975).
STORE AWAY FROM INCOMPATIBLE SUBSTANCES.

DISPOSAL

DISPOSAL MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATORS OF
HAZARDOUS WASTE, 40CFR 262. EPA HAZARDOUS WASTE NUMBER U080.

CONDITIONS TO AVOID

MAY BURN BUT DOES NOT IGNITE READILY. CONTAINER MAY EXPLODE IN HEAT OF FIRE.

SPILL AND LEAK PROCEDURES

SOIL SPILL:
DIG A HOLDING AREA SUCH AS A PIT, POND OR LAGOON TO CONTAIN SPILL AND DIKE

SURFACE FLOW USING BARRIER OF SOIL, SANDBAGS, FOAMED POLYURETHANE
CONCRETE. ABSORB LIQUID MASS WITH FLY ASH OR CEMENT POWDER.

AIR SPILL:
APPLY WATER SPRAY TO KNOCK DOWN VAPORS.

WATER SPILL:
TRAP SPILLED MATERIAL AT BOTTOM IN DEEP WATER POCKETS, EXCAVATED HOLDING AREAS
OR WITHIN SAND BAG BARRIERS.

USE SUCTION HOSES TO REMOVE TRAPPED SPILL MATERIAL.

THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986
(PROPOSITION 65) PROHIBITS CONTAMINATING ANY KNOWN SOURCE OF DRINKING WATER
WITH SUBSTANCES KNOWN TO CAUSE CANCER AND/OR REPRODUCTIVE TOXICITY.

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OCCUPATIONAL SPILL: SHUT OFF IGNITION SOURCES. STOP LEAK IF YOU CAN DO IT WITHOUT RISK. FOR SMALL LIQUID SPILLS, DYE UP WITH SAND, EARTH OR OTHER ABSORBENT MATERIAL. FOR LARGER SPILLS, DYE FAR AHEAD OF SPILL FOR LATER DISPOSAL. NO SMOKING, FLAMES OR FLAMES IN HAZARD AREA! KEEP UNNECESSARY PEOPLE AWAY.

REPORTABLE QUANTITY (RQ): 1000 POUNDS
THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) SECTION 304 REQUIRES THAT A RELEASE EQUAL TO OR GREATER THAN THE REPORTABLE QUANTITY FOR THIS SUBSTANCE BE IMMEDIATELY REPORTED TO THE LOCAL EMERGENCY RESPONSE COMMITTEE AND THE STATE EMERGENCY RESPONSE COMMITTEE. SARA SECTION 103. THE NATIONAL RESPONSE CENTER MUST BE NOTIFIED IMMEDIATELY AT (800) 424-8802 OR (202) 426-2875 IN THE METROPOLITAN WASHINGTON, D.C. AREA (40 CFR 302.6).

PROTECTIVE EQUIPMENT

VENTILATION: PROCESS ENCLOSURE RECOMMENDED TO MEET PUBLISHED EXPOSURE LIMITS.

RESPIRATOR: THE FOLLOWING RESPIRATORS AND MAXIMUM USE CONCENTRATIONS ARE RECOMMENDATIONS BY THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, NIOSH POCKET GUIDE TO CHEMICAL HAZARDS: NIOSH PARTIAL LIST OF RESPIRATORS. NIOSH DEPARTMENT OF LABOR, 230 C. RESPIRATOR SELECTED MUST BE BASED ON CONTAMINATION LEVELS FOUND IN THE SPECIFIC PLACE. MUST NOT EXCEED THE WORKING LIMITS OF THE RESPIRATOR AND IN JOINTLY APPROVED BY THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH AND THE MINE SAFETY AND HEALTH ADMINISTRATION (NIOSH-MSHA).

FOR DICHLOROMETHANE (METHYLENE CHLORIDE):
AT ANY DETECTABLE CONCENTRATION:

ANY SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE.
ANY SUPPLIED-AIR RESPIRATOR WITH FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE IN COMBINATION WITH AN AUXILIARY SELF-CONTAINED BREATHING APPARATUS OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE.

ESCAPE - ANY AIR-PURIFYING FULL FACEPIECE RESPIRATOR (GAS MASK) WITH ORGANIC VAPOR CANISTER.
ANY APPROPRIATE ESCAPE-TYPE SELF-CONTAINED BREATHING APPARATUS.

FOR FIREFIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS:

ANY SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE.
ANY SUPPLIED-AIR RESPIRATOR WITH FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE IN COMBINATION WITH AN AUXILIARY SELF-CONTAINED BREATHING APPARATUS OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE.

CLOTHING: EMPLOYEE MUST WEAR APPROPRIATE PROTECTIVE (IMPERVIOUS) CLOTHING AND EQUIPMENT TO PREVENT REPEATED OR PROLONGED SKIN CONTACT WITH THIS SUBSTANCE.

GLOVES: EMPLOYEE MUST WEAR APPROPRIATE PROTECTIVE GLOVES TO PREVENT CONTACT WITH THIS SUBSTANCE.

EYE PROTECTION: EMPLOYEE MUST WEAR SPLASH-PROOF OR DUST-RESISTANT SAFETY GOGGLES AND A FACESHIELD TO PREVENT CONTACT WITH THIS SUBSTANCE.

EMERGENCY WASH FACILITIES: IT IS THE POLICY OF THE COMPANY THAT AN EMPLOYEE'S EYES AND/OR SKIN MAY BE EXPOSED TO THIS SUBSTANCE. THE EMPLOYER SHOULD PROVIDE AN EYE WASH FOUNTAIN AND QUICK DRENCH SHOWER WITHIN THE IMMEDIATE WORK AREA FOR EMERGENCY USE.

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