

MATERIAL SAFETY DATA SHEET

C.D. PRODUCTS, INC. emergency telephone #
918 N. Union St.. (920)-739-8685
Appleton, WI 54911 ISSUE DATE- 8/4/03

SECTION I: PRODUCT IDENTIFICATION

PRODUCT NAME- MOISTURE CURE URETHANE

PRODUCT #- 2200

PRODUCT CLASS- ALIPHATIC ISOCYANATE SOLUTION-COMBUSTIBLE LIQUID

HMIS CODE HEALTH-1 , FIRE-2, REACTIVITY-0

HAZARD RATING: 0=LEAST, 1=SLIGHT, 2= MODERATE, 3=HIGH, 4= EXTREME

SECTION II: HAZARDOUS INGREDIENTS	CAS	%	PEL	TLV
HOMOPOLYMER OF HDI	28182-81-2	Significant	NA	NA(1)
HEXAMETHYLENE DIISOCYANATE (HDI)	822-06-0	Trace	NA	NA
AROMATIC SOLVENT BLEND	64742-95-6	Moderate	100PPM	25PPM
XYLENE	1330-20-7	Minor	100PPM	100PPM
GYCHOL ETHER PM ACETATE	000108-65-6	Moderate	150PPM	150PPM

% Listing: <1% Trace, 1-10% Minor, 10-35% Moderate 35-60% Significant >60% Major N/E = Not Established
(1) 1 MG/SQ M recommended

SECTION III: PHYSICAL DATA

BOILING RANGE: > 280F

EVAPORATION RATE VS BUTYL ACETATE - slower

VAPOR DENSITY VS AIR: heavier

SOLUBILITY IN WATER: none

APPEARANCE AND ODOR: clear liquid, aromatic solvent odor

PERCENT VOLATILE BY VOLUME: 54

WEIGHT PER GALLON: 8.4b/gal

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (F): <100F

LEL: <1.1%

EXTINGUISHING MEDIA: water spray, dry chemical, foam or carbon dioxide

HAZARDOUS DECOMPOSITION PRODUCTS: carbon dioxide, carbon monoxide, oxides of nitrogen

SPECIAL FIRE FIGHTING PROCEDURES: water spray to keep containers cool, and to protect persons attempting to stop leaks. Wear full emergency equipment with self contained breathing apparatus with a full face piece operated in the positive pressure demand mode, goggles and full protective clothing. Water or foam may cause frothing which can be violent and possibly endanger the life of the fire fighter, especially is sprayed into containers of hot, burning liquid. during a fire vapors and other irritating highly toxic gases may be generated by thermal decomposition or combustion. At temperatures greater than 400F polymeric HDI can decompose which can cause pressure build up in closed containers. cool containers to avoid rupture. Vapors are heavier than air and may travel along the ground to an ignition source causing a flash back to the source of the vapors.

UNUSUAL FIRE AND EXPLOSION HAZARDS: above

SECTION V: HEALTH HAZARD DATA - EFFECTS OF OVER EXPOSURE

INGESTION: can cause gastrointestinal irritation, possible corrosive action in the mouth and digestive tissues, nausea, vomiting and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

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INHALATION: can produce irritation of the mucus membrane in the respiratory tract. Symptoms may be a runny nose, dryness in the throat, coughing, headache, tightness in the chest or a burning sensation. A reduction in lung function may be seen. Extensive exposures to concentrations of MDI well above the TLV could lead to bronchitis, bronchial spasm and pulmonary edema. these effects are usually reversibles. However due to low volatility, high exposures are not anticipated except if the material is overheated or sprayed as an aerosol into the air. Hypersensitivity pneumonitis has also been reported. Another type of response is hyperreactivity or hypersensitization. persons with a preexisting unspecific bronchial hyperactivity or persons with a specific isocyanate hypersensitivity (as a result of previous overexposure or a single large dosage) will respond to small isocyanate concentrations at levels well below the TLV of .02ppm. Symptoms could be immediate or delayed and include chest tightness, respiratory distress or asthmatic attack.

SKIN ABSORPTION: reacts with skin protein and tissue moisture and can cause localized irritation as well as discoloration. Prolonged contact could produce reddening, swelling, or blistering and in some individuals skin sensitization resulting in dermatitis. Cured material is difficult to remove.

SKIN CONTACT: above

EYE CONTACT: can cause severe irritation, redness, tearing, blurred vision. Corneal damage may occur: however indications are that the damage is reversible and does not result in permanent injury.

EFFECTS OF CHRONIC OVER EXPOSURE: No conclusive evidence has been developed to indicate that MDI is carcinogenic, teratogenic or that it causes reproductive effects in animals or humans. MDI has been reported by NIOSH to be mutagenic to salmonella typhimurium bacteria in the presence of a mammalian liver activating system. there is no full agreement in the scientific community on the significance of these Ames test results in man. Preliminary steps for an animal lifetime inhalation study has been associated with various neurotoxic effects including permanent brain and nervous system damage. Symptoms include: loss of memory, loss of intellectual ability and loss of coordination.

EMERGENCY FIRST AID PROCEDURES

EYE CONTACT: flush with water for 15 minutes, lifting upper and lower lids occasionally, and seek medical attention

SKIN CONTACT: wash immediately with soap and water, remove contaminated clothing and launder before reuse. Seek medical attention for severe exposures or if irritation develops and persists.

INGESTION: do not induce vomiting. Give 1 -2 cups of milk or water to drink, keep person warm and quiet and seek medical attention. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

INHALATION: remove to fresh air. If breathing is difficult administer oxygen. If breathing has stopped administer artificial respiration. Keep person warm and quiet and seek medical attention. this material is a known pulmonary sensitizer.

Treatment is essentially symptomatic.

SECTION VI: REACTIVITY DATA

STABILITY: stable

HAZARDOUS POLYMERIZATION: may occur-if in contact with moisture or other materials which react with isocyanates and may occur over 400F

CONDITIONS TO AVOIDS excessive heat, contact with water or strong bases, alcohols, amines, metal compounds and surface active materials. Can cause some corrosion to copper alloys and aluminum.

SECTION VII: SPILL OR LEAK PROCEDURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: stop spill at source, eliminate ignition sources, absorb with inert material, eg- sand, scoop up and put into disposal container. Persons not wearing protective gear should be removed from the area. cover area with decontaminant solution and allow to react for at least 10 minutes and collect material in open containers. Rinse area with water. Remove containers to safe area and let stand 24-48 hours.

Decontamination solution: 0-10% ammonium hydroxide, detergent 2-5%, and balance water. or solution of Union carbides Tergitol TMN-10 (20%) and water (80%). Uncontrolled spills which exceed one gallon may be reportable to the National Response Center.

WASTE DISPOSAL METHOD: Incinerate in furnace or dispose of in accordance with applicable local, state, and federal regulations.

SECTION VIII: SPECIAL PROTECTION INFORMATION

RESPIRATORY: use with adequate ventilation especially if applied by spray. Use NIOSH/MSA approved respirators which should be used where ventilation is not adequate. Niosh approved air-line respirators with auxiliary escape air tanks or self contained breathing apparatus should be used in confined spaces.

VENTILATION: local exhaust recommended when appropriate to control employee exposure.

PROTECTIVE GLOVES: Neoprene, nitrile rubber -should be worn

EYE PROTECTION: chemical splash goggles, or safety glasses with side shields, or face shield should be worn. Contact lenses should not be worn.

OTHER PROTECTIVE EQUIPMENT: impervious work clothing covering arms and legs

SECTION IX: SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: avoid skin contact, remove and launder contaminated clothing. Empty containers may contain residual harmful or flammable vapors so all hazard precautions should be observed.

NOTE: To the best of our knowledge, the information contained herein is accurate. However C.D. Products. Inc assumes no liability whatsoever for the accuracy or completeness of the information contained herein. The final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.