

M A T E R I A L   S A F E T Y   D A T A   S H E E T

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : CHEMREX 948 ADHESIVE  
 IDENTIFICATION NUMBER: EM73-948  
 PRODUCT USE/CLASS : Adhesive

DATE PRINTED: 12/20/98

MANUFACTURER:  
 ChemRex Inc.  
 Industrial Division  
 889 Valley Park Drive  
 Shakopee, MN 55379

EMERGENCY TELEPHONE: 800-424-9300  
 24 HRS A DAY 7 DAYS A WEEK

PREPARER: Scott Shinn, PHONE: 612-496-6000, PREPARE DATE: 10/15/98

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT % LESS THAN
01	Methylene bisphenyl diisocyanate	101-68-8	12.0 %
02	talc	14807-96-6	30.0 %
03	Silica, quartz	14808-60-7	1.0 %
04	hydrotreated light petroleum distillate	64742-47-8	10.0 %
05	Polymethylenepolyphenylisocyanate	9016-87-9	8.0 %

ITEM	EXPOSURE LIMITS				COMPANY TLV-TWA	SKIN
	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING		
01	50 ppm	N.E.	.2 mg/m <sup>3</sup>	N.E.	N.E.	NO
02	2 mg/m <sup>3</sup>	N.E.	2 mg/m <sup>3</sup>	N.E.	N.E.	NO
03	.1 mg/m <sup>3</sup>	N.E.	.1 mg/m <sup>3</sup>	N.E.	N.E.	NO
04	N.E.	N.E.	N.E.	N.E.	N.E.	NO
05	N.E.	N.E.	N.E.	N.E.	N.E.	NO

(See Section 16 for abbreviation legend)

SECTION 3 - HAZARDOUS IDENTIFICATION

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes eye irritation.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Causes skin irritation. Allergic reactions are possible. Repeated or prolonged contact with skin may cause sensitization.

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**SECTION 3 - HAZARDS IDENTIFICATION**

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EFFECTS OF OVEREXPOSURE - INHALATION: Headaches, dizziness, nausea, decreased blood pressure, changes in heart rate and cyanosis may result from over-exposure to vapor. Prolonged inhalation may be harmful.

EFFECTS OF OVEREXPOSURE - INGESTION: Irritating to mouth, throat and stomach.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: This product contains solvents. Reports associate repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Reports also indicate that solvents cause liver damage, kidney damage, and mucous membrane irritation. Be warned that intentional misuse by deliberately inhaling the vapors and/or the product contents (a process often called "sniffing") may be harmful or fatal. Preexisting respiratory or skin condition(s) may be aggravated by exposure. This product contains an isocyanate. Persons with a history of exposure to isocyanates may experience reddening, swelling, rash or blisters. Such individuals could also experience chemical asthma, and nonspecific asthmatic conditions. This product contains silicon dioxide [quartz] which has been listed as a suspected human carcinogen by NTP and IARC.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT INHALATION EYE CONTACT

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**SECTION 4 - FIRST AID MEASURES**

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FIRST AID - EYE CONTACT: Flush eye with water for 15 minutes. Get medical attention.

FIRST AID - SKIN CONTACT: Remove contaminated clothing. Wash skin with soap and water. Get medical attention.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: If swallowed, DO NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Should vomiting occur, be sure to keep victim's head below hips to avoid aspiration of vomitus into lungs.

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**SECTION 5 - FIRE FIGHTING MEASURES**

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FLASH POINT: 250 F

LOWER EXPLOSIVE LIMIT: 1.6 %  
UPPER EXPLOSIVE LIMIT: 10.2 %

AUTOIGNITION TEMPERATURE: N/D

EXTINGUISHING MEDIA: CO2 DRY CHEMICAL WATER FOG

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**SECTION 5 - FIRE FIGHTING MEASURES**

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UNUSUAL FIRE AND EXPLOSION HAZARDS: No Information.

SPECIAL FIREFIGHTING PROCEDURES: Containers can build up pressure if exposed to heat (fire). As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear.

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**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Repeat sorbent/sweep cycle until the spill has dried up. Avoid runoff into storm sewers and ditches which lead to waterways.

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**SECTION 7 - HANDLING AND STORAGE**

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HANDLING: Keep out of reach of children. If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

STORAGE: Keep container closed when not in use.

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

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ENGINEERING CONTROLS: Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

RESPIRATORY PROTECTION: Wear NIOSH/MSHA approved respiratory protection when the product is mixed or applied in a poorly ventilated area or if workplace levels of ingredients exceed the TLV. Follow applicable federal, state, and local regulations.

OTHER PROTECTIVE EQUIPMENT: Where contact is likely, wear chemical resistant gloves, chemical safety goggles with a face shield, and clean protective clothing to cover arms and legs to keep exposure to a minimum.

HYGIENIC PRACTICES: Do not take internally. Wash thoroughly after handling. Avoid breathing vapors from heated material. Avoid contact with eyes, skin, and clothing.

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**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

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BOILING RANGE	: 342 - 514 F	VAPOR DENSITY	: Is heavier than air
ODOR	: Mild oily	ODOR THRESHOLD	: N/D

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 SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES
 

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APPEARANCE : Clear viscous      EVAPORATION RATE: Is slower than Butyl  
 SOLUBILITY IN H2O : Slight [<0.1%]      Acetate  
 FREEZE POINT : N/D      SPECIFIC GRAVITY: 1.2600  
 VAPOR PRESSURE : N/D      pH @ 0.0 % : N/D  
 PHYSICAL STATE : Liquid      VISCOSITY : N/D  
 COEFFICIENT OF WATER/OIL DISTRIBUTION: N/D

(See Section 16 for abbreviation legend)

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 SECTION 10 - STABILITY AND REACTIVITY
 

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CONDITIONS TO AVOID: Long term exposure to elevated temperatures.

INCOMPATIBILITY: Strong bases or oxidants. Strong Lewis or mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Poisonous & acrid fumes released on burning. Acrid fumes. Oxides of carbon.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

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 SECTION 11 - TOXICOLOGICAL PROPERTIES
 

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PRODUCT DERMAL LD50: No Information      PRODUCT ORAL LD50: No Information  
 PRODUCT LC50: No Information

COMPONENT TOXICOLOGICAL INFORMATION:

----- CHEMICAL NAME -----	-- DERMAL LD50 --	--- ORAL LD50 ---	----- LC50 -----
Methylene bisphenyl dii	500 mg/kg/24	30,000 mg/kg	178 mg/m3
talc	No Information	No Information	11mg/m3/1y-I
Silica, quartz	No Information	No Information	No Information
hydrotreated light petr	>3.16 g/kg	.5 g/kg	No Information
Polymethylenepolyphenyl	>9400 mg/kg	>10 gm/kg	No Information

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 SECTION 12 - ECOLOGICAL INFORMATION
 

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ECOLOGICAL INFORMATION: No Information.

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 SECTION 13 - DISPOSAL CONSIDERATIONS
 

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DISPOSAL METHOD: Review all local, state, and federal regulations concerning health and pollution for appropriate disposal procedures.

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## SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Not regulated

DOT TECHNICAL NAME: N/A

DOT HAZARD CLASS: N/A

HAZARD SUBCLASS: N/A

DOT UN/NA NUMBER: N/A

PACKING GROUP: N/A

RESP. GUIDE PAGE:

DOT PLACARD AT: N/A

DOT CLASS NUMBER: N/A

UN PROPER SHIPPING NAME: Not regulated

UN HAZARD CLASS: N/A

UN CLASS NUMBER: AIR N/A

MARINE N/A

HAZARD SUBCLASS: AIR N/A

MARINE N/A

UN UN/NA NUMBER: N/A

UN PACKING GROUP: AIR N/A

MARINE N/A

UN PLACARD AT: N/A

## SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

CERCLA - SARA HAZARD CATEGORY:

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD    CHRONIC HEALTH HAZARD    FIRE HAZARD

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME	CAS NUMBER	WT/WT % IS LESS THAN
Methylene bisphenyl diisocyanate	101-68-8	12.0 %
Polymethylenepolyphenylisocyanate	9016-87-9	8.0 %

TOXIC SUBSTANCES CONTROL ACT:

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SECTION 15 - REGULATORY INFORMATION

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## TOXIC SUBSTANCES CONTROL ACT:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

----- CHEMICAL NAME ----- CAS NUMBER  
No information is available.

## CALIFORNIA PROPOSITION 65:

WARNING: The chemical(s) noted below and contained in this product, are known to the state of California to cause cancer, birth defects or other reproductive harm:

----- CHEMICAL NAME ----- CAS NUMBER  
Acrylonitrile 107-13-1  
Silica, quartz 14808-60-7  
1,1-dichloroethylene 75-35-4

## INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

CANADIAN WHMIS CLASS: No information available.

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SECTION 16 - OTHER INFORMATION

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HMS RATING - HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 0  
PERSONAL PROTECTION: B

PREVIOUS MSDS REVISION DATE: 08/01/95

VOLATILE ORGANIC COMPOUNDS (VOCs): 0.71 lbs/gal, 85 grams/ltr

LEGEND: N.A. - Not Applicable, N.E. - Not Established,  
N.D. - Not Determined

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<END OF MSDS>