

**VULKEM 950 CAT 1 GAL**

 Version 3.  
 REVISION DATE: 10/15/2008

Print Date 10/16/2008

**SECTION 1 - PRODUCT IDENTIFICATION**

Trade name : VULKEM 950 CAT 1 GAL  
 Product code : 150950 801

COMPANY : Tremco Incorporated  
 3735 Green Road  
 Cleveland, OH 44122

Telephone : (216) 292-5000 8:30 - 5:00 EST  
 Emergency Phone: : (216) 765-6727 8:30 - 5:00 EST  
 After Hours: Chemtrec 1-800-424-9300

Product use : Coating Curative

**SECTION 2 - HAZARDS IDENTIFICATION**
**Emergency Overview**

Amber. Liquid. Vapor and/or mist may irritate nose and throat. May cause allergic respiratory sensitization. Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.

**Acute Potential Health Effects/ Routes of Entry**

Inhalation : Vapor and/or mist may irritate nose and throat. May cause allergic respiratory sensitization.  
 Eyes : Vapor and/or mist may cause eye irritation. May cause sensitization.  
 Ingestion : May cause irritation to the mouth, throat and stomach. May cause gastrointestinal irritation, nausea, and vomiting.  
 Skin : May cause sensitization resulting in irritation, itching and redness.

**Aggravated Medical Conditions**

Pre-existing eye, skin and respiratory disorders may be aggravated by exposure.

**Chronic Health Effects**

Overexposure may cause dermatitis, asthma, skin and respiratory sensitization and decreased lung function. Diphenylmethane diisocyanate (methylene bisphenyl isocyanate) caused an increased incidence of lung tumors in experimental animals following long term inhalation at concentrations in excess of 100 times the exposure limit. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

**Target Organs:** Lung, Skin, Eye

**SECTION 3 - PRODUCT COMPOSITION**

| Chemical Name                        | CAS-No.    | Weight %    |
|--------------------------------------|------------|-------------|
| 4,4'-Methylene bis(phenylisocyanate) | 101-68-8   | 40.0 - 70.0 |
| Polymethylene polyphenyl isocyanate  | 9016-87-9  | 15.0 - 40.0 |
| Diphenylmethane diisocyanate         | 26447-40-5 | 10.0 - 30.0 |

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**SECTION 4 - FIRST AID MEASURES**

Get immediate medical attention for any significant overexposure.

- Inhalation : Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.
- Eye contact : Flush with water for at least 15 minutes while holding eye lids apart. Get medical attention immediately.
- Skin contact : Wash area of contact thoroughly with hand cleaner followed by soap and water. If irritation, rash or other disorders develop, get medical attention immediately.
- Ingestion : Do not induce vomiting unless advised by a physician. Call nearest Poison Control Center or Physician immediately.

**SECTION 5 - FIRE FIGHTING MEASURES**

- Flash point : > 350 F, > 177 C
- Method : Pensky-Martens Closed Cup
- Lower explosion limit : Not available.
- Upper explosion limit : Not available.
- Autoignition temperature : Not available.
- Extinguishing media : If water fog is ineffective, use carbon dioxide, dry chemical or foam.
- Hazardous combustion products : Carbon monoxide and carbon dioxide can form. Smoke, fumes. Hydrocyanic acid and nitrogen oxides can form.
- Protective equipment for firefighters : Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA).
- Fire and explosion conditions : This product not expected to ignite under normal conditions of use.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

Use appropriate protective equipment. Avoid contact with material. Absorb spill in sand, earth or other suitable material. Transfer to appropriate container for disposal.

**SECTION 7 - HANDLING AND STORAGE**

Store under normal warehouse conditions. Change soiled work clothes frequently. Clean hands thoroughly after handling. Prevent inhalation of vapor, ingestion, and contact with skin eyes and clothing. Keep container closed when not in use. Precautions also apply to emptied containers.

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

**Personal protection equipment**

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- Respiratory protection : Use full engineering controls before relying on personal protective equipment. Wear appropriate, properly fitted air purifying respirator with combination particulate filter and vapor/gas removing cartridge when airborne contaminant level(s) exceed exposure limits indicated on the MSDS, or product is spray applied.
- Hand protection : Use suitable impervious nitrile or neoprene gloves and protective apparel to reduce exposure.
- Eye protection : Wear appropriate eye protection. Wear chemical safety goggles and/or face shield to prevent eye contact. Do not wear contact lenses. Do not touch eyes with contaminated body parts or materials. Have eye washing facilities readily available.
- Skin and body protection : Prevent contact with shoes and clothing.
- Protective measures : Use professional judgment in the selection, care, and use.
- Engineering measures : Use only in well ventilated areas. Provide maximum ventilation in enclosed areas. Use general ventilation and/ or local exhaust to reduce the airborne contaminant concentration below the exposure limit listed in the MSDS

**Exposure Limits**

| <u>Chemical Name</u>                 | <u>CAS Number</u> | <u>Regulation</u> | <u>Limit</u> | <u>Form</u> |
|--------------------------------------|-------------------|-------------------|--------------|-------------|
| 4,4'-Methylene bis(phenylisocyanate) | 101-68-8          | ACGIH TWA:        | 0.005 ppm    |             |

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

- Form : Liquid
- Color : Amber
- Odor : Characteristic
- pH : Not available.
- Vapour pressure : Not available.
- Vapor density : Heavier than air
- Melting point/range : Not available.
- Freezing point : Not available.
- Boiling point/range : Not available.
- Water solubility : Negligible
- Specific Gravity : 1.19
- % Volatile Weight : 99 %

**SECTION 10 - REACTIVITY / STABILITY**

- Substances to avoid : Strong acids. Strong bases. Amines. Water or moisture. Alcohols.
- Stability : Material is stable under normal storage, handling, and use.
- Hazardous polymerization : Will not occur under normal conditions.



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**SECTION 11 - TOXICOLOGICAL INFORMATION**

4,4'-Methylene bis(phenylisocyanate), CAS-No.: 101-68-8  
Acute inhalation toxicity (LC-50) 0.369 mg/l for 4 h ( Rat ) 0.38 mg/l for 4 h ( Rat )

**SECTION 12 - ECOLOGICAL INFORMATION**

No Data Available

**SECTION 13 - DISPOSAL CONSIDERATIONS**

Disposal Method : Subject to hazardous waste treatment, storage, and disposal requirements under RCRA. Recycle or incinerate waste at EPA approved facility or dispose of in compliance with federal, state and local regulations.

**SECTION 14 - TRANSPORTATION / SHIPPING DATA**

**TDG / DOT Shipping Description:**  
NOT REGULATED

**SECTION 15 - REGULATORY INFORMATION**

**North American Inventories:**

All components are listed or exempt from the TSCA inventory.  
This product or its components are listed on, or exempt from the Canadian Domestic Substances List.

**U.S. Federal Regulations:**

SARA 313 Components : 4,4'-Methylene bis(phenylisocyanate) 101-68-8  
Polymethylene polyphenyl isocyanate 9016-87-9

SARA 311/312 Hazards : Acute Health Hazard

OSHA Hazardous Components :

4,4'-Methylene bis(phenylisocyanate) 101-68-8  
Polymethylene polyphenyl isocyanate 9016-87-9

OSHA Status: Considered : Irritant  
hazardous based on the Sensitizer  
following criteria:

OSHA Flammability : IIIB

When appropriately mixed with the other part, product has a VOC less water and exempt solvent of:  
1 g/l

Regulatory VOC (less water and exempt solvent) : 1190 g/l

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VOC Method 310 : 99 %

**U.S. State Regulations:**

|                     |  |            |
|---------------------|--|------------|
| MASS RTK Components | : 4,4'-Methylene bis(phenylisocyanate) | 101-68-8   |
| Penn RTK Components | : 4,4'-Methylene bis(phenylisocyanate) | 101-68-8   |
|                     | Polymethylene polyphenyl isocyanate    | 9016-87-9  |
|                     | Diphenylmethane diisocyanate           | 26447-40-5 |
| NJ RTK Components   | : 4,4'-Methylene bis(phenylisocyanate) | 101-68-8   |
|                     | Polymethylene polyphenyl isocyanate    | 9016-87-9  |
|                     | Diphenylmethane diisocyanate           | 26447-40-5 |

WARNING! Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm:  
None known.

**SECTION 16 - OTHER INFORMATION**

**HMIS Rating :**

|              |   |
|--------------|---|
| Health       | 3 |
| Flammability | 1 |
| Reactivity   | 1 |
| PPE          |   |

0 = Minimum  
1 = Slight  
2 = Moderate  
3 = Serious  
4 = Severe

**Further information:**

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

**Prepared by: Rich Mikol**

**Legend**

ACGIH - American Conference of Governmental Hygienists  
 CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act  
 DOT - Department of Transportation  
 DSL - Domestic Substance List  
 EPA - Environmental Protection Agency  
 HMIS - Hazardous Materials Information System  
 IARC - International Agency for Research on Cancer  
 MSHA - Mine Safety Health Administration  
 NDSL - Non-Domestic Substance List  
 NIOSH - National Institute for Occupational Safety and Health  
 NTP - National Toxicology Program  
 OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit  
 RCRA - Resource Conservation and Recovery Act  
 RTK - Right To Know  
 SARA - Superfund Amendments and Reauthorization Act  
 STEL - Short Term Exposure Limit  
 TLV - Threshold Limit Value  
 TSCA - Toxic Substances Control Act  
 TWA - Time Weighted Average  
 V - Volume  
 VOC - Volatile Organic Compound  
 WHMIS - Workplace Hazardous Materials Information System