

MATERIAL SAFETY DATA SHEET

1	PRODUCT TILE BOND Roof Tile Adhesive																								
2	COMPOSITION <table border="1" data-bbox="203 420 1299 630"> <thead> <tr> <th>CHEMICAL</th> <th>CAS#</th> <th>CONCENTRATION</th> <th>REGULATED</th> </tr> </thead> <tbody> <tr> <td>4,4-Diphenylmethane-diisocyanate (MDI)</td> <td>101-68-8</td> <td>10-30%</td> <td>Yes</td> </tr> <tr> <td>Polymeric MDI</td> <td>9016-87-9</td> <td>10-30%</td> <td>Yes</td> </tr> <tr> <td>Polyether Poly Blend</td> <td>Mixture_</td> <td>15-40%</td> <td>No</td> </tr> <tr> <td>Chlorodifluoromethane</td> <td>75-45-6</td> <td>10-30%</td> <td>Yes</td> </tr> <tr> <td>Polymeric Colorant</td> <td>Trade Secret</td> <td>< 5%</td> <td>No</td> </tr> </tbody> </table> <p>(1-see regulatory section for more information) (2-different raw material sources) Appearance: Off white, sticky material with a mild odor.</p>	CHEMICAL	CAS#	CONCENTRATION	REGULATED	4,4-Diphenylmethane-diisocyanate (MDI)	101-68-8	10-30%	Yes	Polymeric MDI	9016-87-9	10-30%	Yes	Polyether Poly Blend	Mixture_	15-40%	No	Chlorodifluoromethane	75-45-6	10-30%	Yes	Polymeric Colorant	Trade Secret	< 5%	No
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3	HAZARDS IDENTIFICATION <div data-bbox="203 882 511 934" style="border: 1px solid black; padding: 5px; display: inline-block;"> HMIS: H F R PPE 2 1 0 </div> <p style="text-align: right;">CAUTION! Contents under pressure. Irritancy of Product: Irritating to eyes, skin and respiratory tract. Sensitizing Properties: May cause sensitization by skin contact and inhalation. Exposure to individuals with asthma, eczema and or allergies may aggravate existing conditions. Symptoms may include: coughing, wheezing and shortness of breath. Routes of Entry: Eye and skin contact, inhalation, ingestion.</p>																								
4	FIRST AID MEASURES <p>EYE flush with clean, low pressure water for 15 minutes while holding eyelids open.</p> <p>SKIN remove contaminated clothing; wash skin with soap and water.</p> <p>INHALATION remove to fresh air.</p> <p>INGESTION in case of excessive ingestion, give large amount of liquids. Do not induce vomiting.</p>																								
5	FIRE-FIGHTING MEASURES <p>Flash Point: >200°F (>93.3°C) (estimated) Extinguishing Media: Carbon Dioxide, Dry Chemical, Foam, Water Special Protective Equipment: Self Contained Breathing Apparatus Hazardous Decomposition Products: During combustion, Carbon Monoxide and Carbon Dioxide, Nitrogen Oxides, Ammonia and trace amounts of Hydrogen Cyanide are given off.</p>																								
6	ACCIDENTAL RELEASE MEASURES <p>Provide adequate ventilation. Wear suitable personal protective clothing and equipment. Scrape up the bulk of the spill and put into a suitable waste receptacle. Avoid spreading the spill to other surfaces. Loosely cover waste and set in a safe place. Dispose of entire container after foam is fully cured.</p>																								
7	HANDLING AND STORAGE <p>Protect containers from physical abuse. Avoid direct sunlight Storage temperature: 32°F-120°F (0°-49°C) DO NOT incinerate.</p>																								
Prepared by: M. Herosy File Name: CON-137	Reference No. TILE BOND Roof Tile Adhesive Date of Issue: 2/98 <div style="text-align: right;">(pg. 1 of 2)</div>																								

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8	EXPOSURE CONTROLS/PERSONAL PROTECTION		EYE wear safety goggles. SKIN wear protective clothing. RESPIRATORY use only in well-ventilated areas. With insufficient ventilation, wear Self Contained Breathing Apparatus.									
9	PHYSICAL AND CHEMICAL PROPERTIES		Vapor Pres. (21°C/70°F): 4000mmHg Specific Gravity: 1.3 VOC Content (lb/gal): 0									
10	STABILITY AND REACTIVITY		Stable under normal handling and use. Avoid water contamination, open flames, alcohols, strong bases, acids and ammonia. Reaction may be violent at elevated temperatures.									
11	TOXICOLOGICAL INFORMATION		Concentrations of components (Sec.2) must be considered to determine effects of this mixture. MDI: LD ₅₀ 15gm/kg (rat); ingestion CAUTION! Contents under pressure. Irritancy of Product: Irritating to eyes, skin and respiratory tract. Sensitizing Properties: May cause sensitization by skin contact and inhalation. (Acute and Chronic) Exposure to individuals with asthma, eczema and or allergies may aggravate existing conditions. Symptoms may include: coughing, wheezing and shortness of breath. Routes of Entry: Eye and skin contact, inhalation, ingestion.									
12	ECOLOGICAL INFORMATION		Unknown									
13	DISPOSAL INFORMATION		Do not puncture or incinerate. Relieve all pressure prior to disposal. Empty cylinders, once relieved of all pressure, can be disposed as non-hazardous waste. Dispose of leftover chemical by following instructions under "Accidental Release Measures".									
14	TRANSPORTATION INFORMATION		Compressed gases, N.O.S., (Nitrogen, Chlorodifluoromethane), 2.2 UN1956									
15	REGULATORY INFORMATION		<table border="0"> <tr> <td data-bbox="207 1457 383 1484"><u>EXPOSURE LIMITS</u></td> <td data-bbox="514 1457 740 1484"><u>TWA (8 hour), mg/m</u></td> <td data-bbox="821 1457 1135 1484"><u>SHORT TERM(10 mins), mg/m</u></td> </tr> <tr> <td data-bbox="207 1484 448 1541">4,4-Diphenylmethane-diisocyanate (MDI)</td> <td data-bbox="514 1484 691 1512">0.05 (0.005ppm)</td> <td data-bbox="821 1484 1027 1512">.2 (0.02ppm) ceiling</td> </tr> <tr> <td data-bbox="207 1541 435 1568">Chlorodifluoromethane</td> <td data-bbox="514 1541 691 1568">3500 (1000ppm)</td> <td></td> </tr> </table>	<u>EXPOSURE LIMITS</u>	<u>TWA (8 hour), mg/m</u>	<u>SHORT TERM(10 mins), mg/m</u>	4,4-Diphenylmethane-diisocyanate (MDI)	0.05 (0.005ppm)	.2 (0.02ppm) ceiling	Chlorodifluoromethane	3500 (1000ppm)	
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	<u>REGULATED CHEMICAL</u> 4,4-Diphenylmethane-diisocyanate (MDI) Chlorodifluoromethane PMDI	<u>APPLICABLE REGULATIONS</u> SARA 311/312/313, CAA 1990 Toxic Air Pollutant SARA 311/312/313, Canada, MA, NJ, PA SARA 313										
16	OTHER INFORMATION		This product is a polyurethane blend in the form of a solution in liquid containing by weight 50% or more polymer.									
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