

MATERIAL SAFETY DATA SHEET

Section 1 – Product and Company Identification					
<u>Company Identification</u> ADHESIVES TECHNOLOGY CORP. 450 East Copans Road Pompano Beach, FL 33064			<u>Emergency Phone</u> (800) 255 – 3924 (24 hours) CHEM-TEL <u>Contact Phone</u> (800) 892 – 1880 (9:00 a.m. – 5:00 p.m. EST)		
Effective Date: 01/29/09		Print Date: 01/29/09		MSDS #: CBWS100L	
Product Name: Crackbond WS100L			Prepared By: Richard Boland (x107)		
Section 2 – Composition/Information on Ingredients					
Part A: Hazardous Component	CAS #	% By Weight	PEL	TLV	STEL
Dimethyl glutarate	1119-40-0	< 12%	NE	NE	NE
Dimethyl succinate	106-65-0	< 6%	NE	NE	NE
4,4' Diphenylmethane Diisocyanate	101-68-8	< 5%	0.2 mg/m ³	0.05 mg/m ³	NE
Dimethyl adipate	627-93-0	< 4%	NE	NE	NE
Mixed Isomers	140-31-8	10% – 30%	NE	NE	NE
2,4- Toluene Diisocyanate (TDI)	584-84-9	< 1%	0.2 mg/m ³	0.05 mg/m ³	0.2 mg/m ³
2,6- Toluene Diisocyanate (TDI)	91-08-7				
Part B: Hazardous Component	CAS #	% By Weight	PEL	TLV	STEL
Water (H ₂ O)	7732-18-5	100%	NE	NE	NE
Section 3 – Hazards Identification					
Known Hazards: Part A: Skin and eye irritation. Sensitizer; Part B: Not Applicable					
Signs and Symptoms of Exposure: Part A: Eyes: Irritation, tearing, reddening and swelling. If left untreated, corneal damage can occur and injury is slow to heal. Skin: Irritation, including reddening, swelling, rash, scaling or blistering. Can cause allergic skin reactions in susceptible individuals. Inhalation: Concentrations above the TLV or PEL can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction). Persons with preexisting, non-specific bronchial hyperreactivity can respond to concentrations below the TLV or PEL with similar symptoms as well as asthma attack. Exposure well above the TLV or PEL may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). These effects are usually reversible. Chemical or hypersensitive pneumonitis, with flu-like symptoms (e.g. fever, chills) has also been reported. These symptoms can be delayed up to several hours after exposure. Ingestion: Can result in irritation and corrosive action in the mouth, stomach tissue and digestive tract. Symptoms can include sore throat, abdominal pain, nausea, vomiting, and diarrhea. Part B: Not Applicable					
Medical Conditions Aggravated by Exposure: Asthma, other respiratory disorders (bronchitis, emphysema, bronchial hyperreactivity), skin allergies, eczema.					
Routes of Exposure: Dermal. Inhalation.					
Carcinogenicity: Neither MDI nor polymeric MDI are listed by the NTP, IARC, or regulated by OSHA as carcinogens. TDI is listed by NTP as a anticipated human carcinogen, IARC as possible human carcinogen (group 2B).					
Section 4 – First Aid Measures					
Inhalation: Move to fresh air; give oxygen if breathing is difficult. Call a physician if symptoms persist.					
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Seek immediate medical attention (physician or ophthalmologist).					
Skin: Wash effected area with mild soap and water. Remove and launder contaminated clothing before reuse. Seek medical attention if irritation develops or persists after the area is washed.					
Ingestion: DO NOT INDUCE VOMITING. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Consult a physician immediately.					
Other: Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure. If Sensitization occurs, future contact with the material should be avoided.					
Section 5 – Fire Fighting Measures					
Flash Point: Part A: > 212° F. Part B: Not Applicable			Flammable Limits: N/A		
Extinguisher Media: Dry Chemical; Carbon Dioxide; Foam; Water Spray for large fires.					
Special Fire Fighting Procedures: Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. During a fire, MDI and TDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustions (see stability and reactivity). At temperatures greater than 400°F (204°C), isocyanates can polymerize and decompose which can cause pressure build-up in closed containers. Explosive rupture is possible. Therefore, use cold water to cool fire-exposed containers.					
Unusual fire and Explosion Hazards: None known. Thermal decomposition products can be formed.					
Section 6 – Accidental Release Measures					
Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment, including respiratory equipment during clean-up. If temporary control of isocyanate vapor is required, a blanket of protein foam (available at most fire departments) may be placed over the spill. Large quantities may be pumped into closed, but not sealed, containers for disposal. Minor Spill: Absorb isocyanates with sawdust or other absorbent, shovel into suitable unsealed containers, transport to well-ventilated area (outside) and treat with neutralizing solution.					
Section 7 – Handling and Storage					
Avoid contact with eyes, skin and clothing. Do not breathe aerosols, or vapors. Avoid prolonged inhalation of vapors. Use with adequate ventilation. Wash thoroughly after handling. Store in tightly sealed containers in a cool dry place out of direct rays of the sun. Do not reseal containers if contamination is suspected. Keep from freezing. Store between 68° and 86° F.					

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Section 8 – Exposure Control/Personal Protection					
Respiratory Protection: When concentrations exceed the TLV or PEL (or are not known) respiratory protection (either positive pressure or continuous flow type) must be worn. In an emergency situation, a self-contained breathing apparatus may be used. TDI has poor warning properties, since the concentration at which TDI can be smelled is substantially higher than the maximum exposure limit. Observe OSHA regulations for respirator use (29 CFR 1910.134).					
Ventilation: General (natural or mechanical induced fresh air movements) exhaust to maintain levels below the TLV or PEL whenever MDI or TDI is processed, heated or spray applied.					
Eye Protection: Wear splash proof chemical goggles.					
Protective Gloves: Permeation resistant gloves (butyl rubber, nitrile rubber, polyvinyl alcohol).					
Other Protective Clothing or Equipment: Wear appropriate apparel to prevent skin contact. Safety showers & eyewash stations should be available.					
Section 9 – Physical and Chemical Properties					
Appearance: Part A: Brown Liquid Part B: Water			Specific Gravity (g/cc): Part A: 1.1; Part B: 1.0		
Odor: Part A: Sweet; Part B: None		pH: N/D	Boiling Point: N/D		VOC Content: Negligible
Solubility in Water: Soluble. Reacts slowly with water to liberate CO ₂				Evaporation Rate: Non-volatile	
Vapor Pressure: Less than 1 x 10 ⁻⁵ mm Hg @ 77°F (25°C) for MDI; 3 x 10 ⁻⁴ for TDI				Vapor Density: 8.5 (MDI) (Air = 1)	
Section 10 – Stability and Reactivity					
Hazardous Polymerization: May occur			Stability: Stable		
Incompatibility: Water, amines, strong bases alcohols. Will cause some corrosion to copper alloys and aluminum.					
Hazardous Decomposition Products: Thermal decomposition can yield carbon monoxide, oxides of nitrogen, traces of HCN, MDI.					
Conditions to Avoid: Exposure to excessive heat and storage above 95°F will shorten shelf life					
Section 11 – Toxicological Information					
For detailed toxicological information on the components of this material, contact the address listed in Section 1.					
Section 12 – Ecological Information					
No information available at this time					
Section 13 – Disposal Considerations					
Waste Disposal Method: Waste must be disposed of in accordance with federal, state, and local, environmental control regulations. Incineration is the preferred method.					
Section 14 – Transport Information					
This material is not regulated as a hazardous material by DOT, IMO, IATA.					
Section 15 – Regulatory Information					
Hazard Communication: This MSDS has been prepared in accordance with the federal OSHA Hazard Communication Standard.					
OSHA Status: Hazardous		TSCA Inventory Status: Chemical components listed on TSCA inventory			
CERCLA Reportable Quantity: 5000 lbs. for 4,4' Diphenylmethane Diisocyanate, 101-68-8 100 lbs. for 2,4- Toluene Diisocyanate, CAS # 584-84-9 100 lbs. for 2,6- Toluene Diisocyanate, CAS # 91-08-7					
EPA Waste Code(s): Not regulated by EPA as a hazardous waste					
SARA Title III: Section 302 Extremely Hazardous Substance: Mixture of 2,4- Toluene Diisocyanate (CAS #584-84-9) and 2,6- Toluene Diisocyanate (CAS # 91-08-7) less than 1% (<1%) Section 311/312 Hazard Categories: Immediate Health Hazard, Delayed Health Hazard, Reactive Hazard. Section 313 Toxic Chemicals: 4,4' Diphenylmethane Diisocyanate, 101-68-8, <5% Mixture of 2,4- Toluene Diisocyanate (CAS #584-84-9) and 2,6- Toluene Diisocyanate (CAS # 91-08-7) less than 1% (<1%)					
CALIFORNIA PROPOSITION 65: Toluene Diisocyanate is known to cause cancer by the State of California					
Section 16 – Other Information					
HMIS Rating	Part A	Part B	NFPA Hazard Rating	Part A	Part B
Health	2	0	Health	1	0
Flammability	1	0	Flammability	1	0
Reactivity	0	1	Reactivity	0	0
PPE	B	0			
Abbreviations: PEL = OSHA Permissible Exposure Limit; TLV = ACGIH Threshold Limit Value; C = Ceiling; STEL = Short Term Exposure Limit; NE = None Established; NA = Not Applicable. ND = Not Determined; ppm = parts per million					
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