

**MATERIAL SAFETY DATA SHEET**

Section 1 – Product and Company Identification					
<u>Company Identification</u> ARDEX Engineered Cements, Inc. 400 Ardex Park Drive Aliquippa, PA 15001 (888) 512-7339			<u>Emergency Phone CHEM-TEL</u> (800) 255-3924 (24 hours) or call collect 1-813-248-0585 <u>Contact Phone</u> 724-203-8499 (9:00 a.m. – 5:00 p.m. EST)		
Effective Date: July 1, 2010					
Product Name: ARDEX ARDISEAL RAPID PLUS			Prepared By: Richard Boland		
Section 2 – Composition/Information on Ingredients					
Part A: Hazardous Component (chemical & common name)	CAS No.	% By Weight	PEL	TLV	STEL
4,4' Diphenylmethane Diisocyanate	101-68-8	10% – 25%	0.005ppm	0.005ppm	NE
Part B: Hazardous Component (chemical & common name)	CAS No.	% By Weight	PEL	TLV	STEL
Di (methylthio) Toluene Diamine	106264-79-3	7% – 20%	NE	NE	NE
Section 3 – Hazards Identification					
Known Hazards: Part A: Skin and eye irritation. Sensitizer; Part B: Skin and eye irritation.					
Signs and Symptoms of Exposure: Part A: Eyes: Irritation, redness, tearing and blurred vision. Corneal injury is not expected. Skin: Irritation. Can cause allergic skin reactions in susceptible individuals, e.g. itching, redness, swelling, etc. Inhalation: No ill effects expected. Heated vapors can cause irritation. Part B: Eyes: Irritation, redness, tearing and blurred vision. Possible eye burns. Skin: Can cause irritation and skin burns. Inhalation: No ill effects expected. Heated vapors can cause irritation.					
Medical Conditions Aggravated by Exposure: Skin, eye, and respiratory conditions					
Routes of Exposure: Dermal. Inhalation.					
Carcinogenicity: See Section 11 – Toxicological Information					
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. Call a physician as soon as possible.					
Skin: Wash with mild soap and water. Launder contaminated clothing before reuse.					
Ingestion: Seek Medical attention 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: Non-Flammable liquids			Flammable Limits: N/A		
Extinguisher Media: Foam, CO ₂ , Dry Chemical, or Water Fog					
Special Fire Fighting Procedures: Firefighters must wear self-contained breathing apparatus and full protective clothing to prevent contact with toxic and/or irritating fumes. Do not spray pool fires directly; a stream of water directed into hot, burning liquid can cause frothing.					
Unusual fire and Explosion Hazards: Contamination of “ISO” component with water will generate carbon dioxide gas with possible pressure build up in confined areas. Incomplete combustion may produce carbon monoxide. “POLY” container may rupture due to pressure rise. Both “ISO” and “POLY” should not explode from mechanical impact. Containers exposed to intense heat rises should be cooled with water to prevent vapor pressure build up which could result in container rupture.					
Section 6 – Accidental Release Measures					
STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Avoid all personal contact. In enclosed areas, cleanup personnel should wear self-contained breathing apparatus. Cover spills with sawdust, vermiculite, or other absorbent material to minimize spreading of the material before collecting. Do not heat or cut empty containers with electric or gas torch. “ISO” component must be neutralized with an equal volume of a 6% ammonia solution in water and allowed to react for 10 minutes. Collect into open containers and add more solution. Cover loosely to vent carbon dioxide gas generated.					
Section 7 – Handling and Storage					
Handling: Avoid contact with eyes, skin and clothing. Avoid prolonged inhalation of vapors. Use with adequate ventilation.					

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Wash thoroughly after handling. Storage: Store in a cool dry place away from direct sunlight. Keep from freezing. Recommended storage temperature range in between 40° and 95° F.			
Section 8 – Exposure Control/Personal Protection			
Respiratory Protection: None normally required. Use self contained breathing apparatus in enclosed areas.			
Ventilation (Local Exhaust): Mechanical			
Eye Protection: Safety goggles or face shield			
Protective Gloves: Chemical resistant plastic or rubber gloves.			
Other Protective Clothing or Equipment: Wear appropriate apparel to prevent skin contact. Eye bath and safety shower should be available.			
Section 9 – Physical and Chemical Properties			
Appearance: Part A: Amber Liquid Part B: Gray Liquid		Specific Gravity (g/cc): Part A: 1.09; Part B: 1.04	
Odor: Part A: Slight Odor; Part B: Slight Amine Odor		pH: N/D	
Boiling Point:	A: >405°F	B: >500°F	Vapor Density: N/A
Vapor Pressure:	A: 4mmHg at 121°C	B: 4mmHg at 121°C	VOC Content: 7.84 g/l (when mixed)
Solubility in Water:	A: Reacts	B: Slight	Evaporation Rate: N/A
Section 10 – Stability and Reactivity			
Hazardous Polymerization: “ISO” component reacts slowly with water to product carbon dioxide gas.		Stability: Stable	
Incompatibility: “A component (ISO)” reacts with water, alcohol, carboxylic acids, amines and ammonia. “B Component (POLY)” avoid contact with strong alkalis and oxidizers.			
Hazardous Decomposition Products: Incomplete burning may produce nitrogen oxides, hydrogen cyanides, carbon monoxide, and/or carbon dioxide.			
Conditions to Avoid: Temperature extremes. Exposure to excessive heat and storage above 95° F will shorten shelf life			
Section 11 – Toxicological Information			
The International Isocyanate Institute is currently sponsoring a lifetime study on polymeric MDI in rats for carcinogenicity. Monomeric MDI is positive for mutagenicity in the Ames assay. Oral LD50 (rats) is greater than 15800 mg/Kg. Dermal LD50 (rabbits) is greater than 7900 mg/Kg. Inhalation LC50 (rats – 2hr) is greater than 400 mg/M3 on dust of monomeric MDI. Harmful or fatal if swallowed. Vapor harmful. May cause skin or eye irritation. KEEP OUT OF REACH OF CHILDREN			
Section 12 – Disposal Considerations			
If the material as supplied becomes a waste, dispose in accordance with federal, state and local regulations.			
Section 13 – Transport Information			
DOT Shipping Information: NOT DOT REGULATED – NON HAZARDOUS			
Section 14 – Regulatory Information			
Hazard Communication: This MSDS has been prepared in accordance with the federal OSHA Hazard Communication Standard.			
EPA Waste Code(s): Not regulated by EPA as a hazardous waste			
HMIS Codes: A: Health 2, Flammability 1, Reactivity 1, PPE B; B: Health 1, Flammability 1, Reactivity 0, PPE I			
SARA Title III, Section 313: This product contains less than 26% of 4,4’ Diphenylmethane Diisocyanate which is subject to reporting under Section 313 of SARA Title III			
TSCA Inventory Status: Chemical components listed on TSCA inventory			
Abbreviations: PEL = OSHA Permissible Exposure Limit. TLV = ACGIH Threshold Limit Value. C = Ceiling. STEL = Short Term Exposure Limit. NE = None Established. NA = Not Applicable. ppm = parts per million			
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