



**DUR-A-FLEX**  
INNOVATION FROM THE FLOOR UP

95 Goodwin Street, East Hartford, CT., 06108 (860) 528-9838

# Material Safety Data Sheet

Date Prepared 8/2/2010

<b>SECTION I - IDENTIFICATION</b>	HAZARD RATING 0 = Least 1 = Slight 2 = Moderate 3 = High 4 = Extreme	Health	2
		Flammability	1
		Reactivity	1
		Personal Protection	G
IDENTITY (As Used on Label) <b>Poly-Crete KT Hardener</b>			
COMMON NAME Aromatic Isocyanate			

SECTION II - PRODUCT COMPONENTS	CAS.#	OSHA PEL	ACGIH TLV
Polyisocyanate based on MDI	Trade Secret <sup>1</sup>	NE <sup>2</sup>	NE
4,4-Diphenylmethane Diisocyanate	101-68-8	0.02 ppm	0.005 ppm

<sup>1</sup>The manufacturer of the component states that they will provide additional information to a health professional in the event of a medical emergency.

<sup>2</sup>None Established

T.S.C.A. Status - O.K. on all above components.

**\*FOR SPILL, LEAK, FIRE, OR ACCIDENT, CALL CHEMTREC 24-HOUR EMERGENCY NUMBER 1-800-424-9300\***

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS			
Boiling Point	410°F	Specific Gravity (H <sub>2</sub> O = 1)	1.24
Vapor Pressure (mm Hg)	<10-5 @77F	Melting Point	NE
Vapor Density (AIR = 1)	8.5	Evaporation rate (Butyl Acetate = 1)	NE
Volatile Organic Compounds (VOC)	0 g/L		
Solubility in Water	Reacts slowly with water to liberate CO <sub>2</sub> gas		
Appearance and Odor	Brown liquid. Musty aromatic odor.		

SECTION IV - FIRE and EXPLOSION HAZARD DATA			
Flash Point (Closed Cup Method)	>400°F	Flammable Limits	LEL UEL NA NA
Extinguishing Media	Dry Chemicals, CO <sub>2</sub> , Universal Type Foam, Water Fog		
Special Firefighting Procedures			

Wear full protective equipment including self-contained breathing apparatus. Water spray may be useful in minimizing vapors and cooling containers exposed to heat and flame. Avoid spreading burning liquid with H<sub>2</sub>O used for cooling purposes.

Unusual Fire and Explosion Hazards  
MDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. At temperatures greater than 400F, polymeric MDI can polymerize and decompose which can cause pressure build-up in containers. Explosive rupture is possible. Cold water can cool fire-exposed containers.

SECTION V - REACTIVITY DATA			
Stability	Unstable		Conditions to Avoid
	Stable	X	Keep containers closed and dry away from moist when not in use.
Incompatibility (Materials to Avoid)	Water, amines, strong bases, alcohols, copper alloys and aluminum, zinc.		
Hazardous Decomposition or Byproducts	Fire: Carbon monoxide, oxides of Nitrogen, traces of HCN, MDI vapors or aerosols.		
Hazardous Polymerization	May Occur	X	Conditions to Avoid Contact with moisture, other materials which react with isocyanates, or temperatures above 320°F may cause polymerization.
	Will Not Occur		

## SECTION VI - HEALTH HAZARD DATA

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	YES	Yes

Signs and Symptoms of Exposure Irritation and redness of skin and eyes. Breathing difficulty.

Health Hazards (Acute and Chronic) ACUTE Inhalation-can cause nasal and respiratory irritation, dizziness, headache, nausea.

Also, runny nose, sore throat, coughing, chest discomfort and reduced lung function. CHRONIC Inhalation-isocyanate sensitization can develop

which can persist for weeks or years. Overexposure can cause lung damage which may be permanent. ACUTE Skin-isocyanates react with skin

protein and cause irritation. CHRONIC Skin-prolonged contact can cause reddening, swelling, scaling, rash, blistering and skin sensitization. ACUTE

Eye-tearing, reddening, swelling if untreated, corneal damage can result.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	NO	NO	NO

Medical Conditions Generally Aggravated by Exposure

Respiratory disorders (asthma, bronchitis, emphysema, bronchial hyperactivity), skin allergies, eczema.

Emergency and First Aid Procedures

EYES - Flush with water, holding lids open for 15 minutes or more. Call physician for advice if necessary.

Skin - remove contaminate clothing. Clean affected area with mild soap and water. If irritation or redness develops, seek medical attention.

INHALATION- move person away from source of exposure and into fresh air. If person is not breathing, give artificial respiration and seek medical attention immediately. If breathing difficulty develops, give oxygen and seek medical attention immediately.

Ingestion-DO NOT INDUCE VOMITING. Give 1 to 2 cups of milk or water to drink. Do not give anything by mouth to an unconscious person.

Consult physician

**\*\*NOTE\*\* PERSONS WITH LUNG DISORDERS OR WHO ARE SENSITIZED SHOULD NOT USE THIS PRODUCT.**

## SECTION VII - CONTROL MEASURES

Respiratory Protection (Specify Type) Use NIOSH approved respirator as outlined in 30CFR11 and 29CFR 1910.134 effective for solvent and diisocyanate vapors. Use SCBA or air-supplied respirators when TLV/PEL is exceeded.

Ventilation	Local Exhaust	Use in confined areas.	Special	Sensitized persons must not inhale vapors
	Mechanical	Must be sufficient to maintain area below established TLV/PEL.		

Protective Gloves	Neoprene or natural rubber gloves	Eye Protective	Splash proof goggles.
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Other Protective Clothing or Equipment

Use other protective equipment such as rubber aprons and a face shield if danger of splashing is possible.

Eye wash station or clear water must be readily available. ENFORCE GOOD HYGIENE PRACTICES. No smoking or open lights in work area. Exposure to liquid, vapors, mists or fumes must be minimized. Use air supplied respirators in enclosed areas and when PEL/TLV is higher than established level.

Work/Hygienic Practices Launder contaminated clothing before use. Dispose contaminated leather shoes

## SECTION VIII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment, including respiratory equipment during clean-up. Absorb isocyanates with sawdust or another absorbent, shovel into unsealed containers, transport to a well-ventilated area. Decontaminate floor area.

Waste Disposal Method

Incineration in accordance with local, state, and federal regulations.

Precautions to be Taken in Handling and Storing Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected. Do not breathe aerosols or vapors. This material can cause asthmatic sensitization upon single exposure.

Other Precautions Exposure to vapors of heated MDI can be extremely dangerous.

Prepared by Samet Dy - Urethane Chemist

**PLEASE NOTE** "The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, Dur-A-Flex, Inc. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. User should satisfy himself that he has all current data relevant to his particular use."



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# Material Safety Data Sheet

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<b>SECTION I - IDENTIFICATION</b>	<b>HAZARD RATING</b>	Health	1
		Flammability	1
		Reactivity	0
		Personal Protection	B
<b>IDENTITY (As Used on Label)</b>	Poly-Crete KT Resin		
<b>COMMON NAME</b>	POLYOL-PIGMENT BLEND		

<b>SECTION II - PRODUCT COMPONENTS</b>	<b>CAS.#</b>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>
Polyester polyol	Proprietary <sup>1</sup>	N.E. <sup>2</sup>	N.E.
Polyolalkoxylate	Proprietary	N.E.	N.E.
Aluminum Silicate	1332-58-7	10mg/m <sup>3</sup> (Dust)	10mg/m <sup>3</sup>
Carbon Black	1333-86-4	3.5mg/m <sup>3</sup> (dust)	3.5mg/m <sup>3</sup> (dust)
RutileTitanium Dioxide	13463-67-7	10mg/m <sup>3</sup>	10mg/m <sup>3</sup>
Inorganic Iron Oxides	1309-37-1	10mg/m <sup>3</sup>	10mg/m <sup>3</sup>
Crystalline Silica	14808-60-7	10mg/m <sup>3</sup> (Dust)	0.05
		%SiO <sub>2</sub> +2	

<sup>2</sup>None Established.

<sup>1</sup>The manufacturer of the component states that they will provide additional information to a health professional in the event of a medical emergency.

T.S.C.A. Status - O.K. on all above components.

**\*FOR SPILL, LEAK, FIRE, OR ACCIDENT, CALL CHEMTREC 24-HOUR EMERGENCY NUMBER 1-800-424-9300\***

<b>SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS</b>			
Boiling Point	595°F	Specific Gravity (H2O = 1)	>1
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	>1	Evaporation rate (Butyl Acetate = 1)	<1
Volatile Organic Compounds	0 g/L		
Solubility in Water	Insoluble		
Appearance and Odor	Viscous Liquid. Color varies upon desired shade. Faint Aromatic Odor.		

## SECTION IV - FIRE and EXPLOSION HAZARD DATA

Flash Point (Closed Cup Method)	>400°F	Flammable Limits	LEL	UEL
			N / A	N / A

Extinguishing Media Foam, CO<sub>2</sub>, dry chemical, water spray.

Special Firefighting Procedures

Wear full protective equipment including self-contained breathing apparatus.

Unusual Fire and Explosion Hazards

Combustion products may be toxic. Cool storage containers with water spray to prevent pressure build-up that may rupture the containers.

## SECTION V - REACTIVITY DATA

Stability	Unstable		Conditions to Avoid
	Stable	X	None known

Incompatibility (Materials to Avoid) Strong Oxidants.

Hazardous Decomposition or Byproducts Burning will produce toxic fumes.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	Avoid contact with strong oxidizing agent.

## SECTION VI - HEALTH HAZARD DATA

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	No	Yes	Yes

Signs and Symptoms of Exposure Irritation of skin..

Health Hazards (Acute and Chronic)

ACUTE - Irritation of skin and dermatitis.

CHRONIC - Repeated over-exposure may cause skin irritation, dermatitis and sensitization.

Sensitized persons may experience rapid irritation of skin upon exposure.

NOTE: Persons with lung disorders or who are sensitized should not use this product.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Medical Conditions Generally Aggravated by Exposure

Allergy , skin disorders.

Emergency and First Aid Procedures

EYES - Flush with water, holding lids open for 15 minutes or more. Call physician for advice if necessary.

SKIN - Promptly wash with soap and water. Do not wash with solvents. Seek medical advice if irritation develops or persists.

INHALATION - Not a likely route of entry. Although this product is not known to cause respiratory problems, if breathing is difficult rmove to fresh air and provide oxygen

INGESTION - Get medical attention immediately. Never give liquids to an unconscious or convulsing person.

## SECTION VII - CONTROL MEASURES

Respiratory Protection (Specify Type)

Provide adequate exhaust ventilation; use a NIOSH approved respirator if PELS/TLVS are exceeded.

Ventilation	Local Exhaust	If needed.	Special	None known.
	Mechanical	Adequate exhaust ventilation must exhaust away from applicator.		

Protective Gloves	Natural Rubber or Neoprene	Eye Protection	Splash goggles or face shield.
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Other Protective Clothing or Equipment

Use rubber apron, face shield and appropriate, clothing to prevent contact with skin. Launder contaminated clothing before reuse. Discard contaminated leather shoes and canvas sneakers. Protective skin creams may help, but gloves must still be worn. Clean-up with soap and water. An eye wash station or an adequate supply of clean water must be available at work area.

Work/Hygienic Practices Enforce careful handling to prevent splashing. Wash thoroughly after use.

## SECTION VIII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled

Wear protective equipment to prevent exposure. Stop spill and dike to prevent spreading. Cover spill with absorbent materials and collect into containers. Clean contaminated area with detergent and water or a steam cleaner for best results.

Waste Disposal Method:

Dispose in accordance with Federal, State and Local requirements.

Precautions to be Taken in Handling and Storing

Keep containers tightly closed when not in use.

Other Precautions None known.

Prepared by Samet Dy - Urethane Chemist

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