



# Material Safety Data Sheet

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

Date Prepared 8/2/2010

## SECTION I - IDENTIFICATION

IDENTITY (As Used on Label) Polythane #2 High Solids Hardener

COMMON NAME Aliphatic Polyisocyanate Resin Solution

HAZARD RATING	Health	2
0 = Least	Flammability	1
1 = Slight	Reactivity	1
2 = Moderate	Personal Protection	G
3 = High		
4 = Extreme		

## SECTION II - PRODUCT COMPONENTS

	CAS.#	OSHA PEL	ACGIH TLV
Homopolymer of HDI	28182-81-2	N.E. <sup>1</sup>	N.E.
Hexamethylene Diisocyanate (HDI) <sup>2</sup>	822-06-0	N.E.	0.005ppm

<sup>1</sup>Not Established

<sup>2</sup>Residual monomer content is less than 0.5% based on resin solids at the time of manufacture.

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	194 °C	Specific Gravity (H2O = 1)	1.12
Vapor Pressure (mm Hg)	4.7 x 10 <sup>-7</sup>	Melting Point	N/A
Vapor Density (AIR = 1)	>1	Evaporation rate (Butyl Acetate = 1)	N/A
Volatile Organic Compounds (VOC)	0 g/L		
Solubility in Water	NOT SOLUBLE.		
Appearance and Odor	Clear/pale yellowish Liquid, Negligible-Nearly Odorless		

## SECTION IV - FIRE and EXPLOSION HAZARD DATA

Flash Point (Closed Cup Method)	460°F	Flammable Limits	LEL	UEL
			N/A	

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. During a fire, HDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Closed container may explode when exposed to extreme heat or burst when contaminated with water (CO<sub>2</sub> evolved).

Unusual Fire and Explosion Hazards

None reported for this product.

## SECTION V - REACTIVITY DATA

Stability	Unstable		Conditions to Avoid
	Stable	X	Keep containers closed when not in use.
Incompatibility (Materials to Avoid)	Avoid oxidizers and phosphorus-containing materials.		
Hazardous Decomposition or Byproducts	Fire may yield carbon monoxide and/or carbon dioxide.		
Hazardous Polymerization	May Occur	X	Conditions to Avoid
	Will Not Occur		Contact with moisture or other materials which react with isocyanates or temperatures above 400F.

## 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 - prolonged skin exposure can cause irritation, dermatitis. Inhalation of vapors can cause nasal and respiratory irritation, dizziness, headache, nausea.

CHRONIC - prolonged or repeated exposure to vapors may cause lung damage as well as increased sensitivity.

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

Medical Conditions Generally Aggravated by Exposure

Asthma and other respiratory disorders (bronchitis, emphysema, hyperreactivity), 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.

**\*\*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	Explosion proof fans when needed.
	Mechanical	Must be sufficient to maintain area below established TLV/PEL.		

Protective Gloves Neoprene rubber gloves. Eye Protection Splash proof goggles.

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

Shut off and eliminate all ignition sources. Keep people away. Add sand, earth or other absorbent to spill area. Ventilate confined spaces. Open windows and doors, minimize breathing vapors and skin contact. Keep spill out of sewers by diking. Observe precautions for volatile, flammable vapors from absorbed material.

Waste Disposal Method

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

Precautions to be Taken in Handling and Storing Keep containers tightly closed when not in use and away from excessive heat and flame. DO NOT pressurize, cut, weld, solder, drill or grind the containers.

Other Precautions Store in an OSHA approved area for flammable materials.

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."



# Material Safety Data Sheet

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

Date Prepared 8/2/2010

## SECTION I - IDENTIFICATION

IDENTITY (As Used on Label) <b>Dur-A-Gard Hardener: No Sag, Regular, OPF, Fast, Crete-Gard</b>	HAZARD RATING 0 = Least 1 = Slight 2 = Moderate 3 = High 4 = Extreme	Health	3
		Flammability	1
COMMON NAME Amine Curative for Epoxy resin		Reactivity	0
		Personal Protection	G

## SECTION II - PRODUCT COMPONENTS

CAS.#	OSHA PEL	ACGIH TLV
Benzyl Alcohol	100-51-6	N.E. <sup>1</sup> N.E.
3, Aminomethyl -3,5,5-Trimethyl	2855-13-2	N.E. N.E.
1, 5 Pentanediamine, 2 Methyl	15520-10-2	N.E. N.E.
N, Aminoethyl Piperazine	140-31-8	N.E. N.E.
Diglycidyl Ether Bisphenol A Epoxy Resin	25085-99-8	N.E. N.E.
Salicylic Acid	69-72-7	N.E. N.E.
Polyoxypropylenediamine	9046-10-0	N.E. N.E.
Amorphous Fumed Silica	7631-86-9	N.E. N.E.
Propylene Glycol Monomethyl Ether	107-98-2	N.E. N.E.
Nonyl Phenol	84852-15-3	N.E. N.E.
Triphenyl Phosphite	101-02-0	N.E. N.E.

<sup>1</sup>None Established

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

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## SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	250°F	Specific Gravity (H2O = 1)	< 1
Vapor Pressure (mm Hg)	12.6	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation rate (Butyl Acetate = 1)	0.7
Solubility in Water	Partially soluble.		
Appearance and Odor	Clear low viscosity liquid. Mild amine odor.		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Closed Cup Method)	100°F	Flammable Limits	LEL	UEL
			N/A	N/A

Extinguishing Media Water spray, Foam, CO<sub>2</sub>, Dry Chemicals.

Special Firefighting Procedures

Wear full protective equipment including self-contained breathing apparatus.

Irritating and/or toxic gases may be generated by fire.

Unusual Fire and Explosion Hazards

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	Keep containers closed when not in use.
Incompatibility (Materials to Avoid)	Strong oxidizers and acids.		
Hazardous Decomposition or Byproducts	By Fire - Carbon monoxide, Carbon dioxide, Nitrogen oxides.		
Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	Uncontrolled reaction with epoxy resins.

## SECTION VI - HEALTH HAZARD DATA

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

Signs and Symptoms of Exposure Irritation of skin.

Health Hazards (Acute and Chronic)

ACUTE - Irritation of skin and dermatitis.

CHRONIC - Repeated overexposure will cause severe skin irritation, dermatitis and sensitization. Sensitized persons may experience rapid irritation of skin upon exposure.

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 - Move person to fresh air if effects occur. If needed, give oxygen or artificial respiration to improve breathing. Consult physician.

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.

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 help cleaning with soap and water, gloves must still be worn. 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 - Chemist

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

# Material Safety Data Sheet

Date Prepared 9/1/2008

## SECTION I - IDENTIFICATION

**IDENTITY (As Used on Label)** Dur-A-Gard Resin: all colors/Bio-Pruf®

**COMMON NAME** Pigmented Epoxy Resin

HAZARD RATING 0 = Least 1 = Slight 2 = Moderate 3 = High 4 = Extreme	Health	1
	Flammability	1
	Reactivity	0
	Personal Protection	G

## SECTION II - PRODUCT COMPONENTS

	CAS.#	OSHA PEL	ACGIH TLV
Diglycidyl Ether Bisphenol A Epoxy Resin	25068-38-6	N.E. <sup>1</sup>	N.E.
Aliphatic Glycidyl Ether Diluent	68609-97-2	N.E.	N.E.
Titanium Dioxide	13463-67-7	15mg/m <sup>3</sup>	10mg/m <sup>3</sup>
Calcium Carbonate	1317-65-3	15mg/m <sup>3</sup>	10mg/m <sup>3</sup>
Aluminum Silicate	1332-58-7	15mg/m <sup>3</sup>	2mg/m <sup>3</sup>
Barium Sulfate <sup>2</sup>	7727-43-7	10mg/m <sup>3</sup>	10mg/m <sup>3</sup>
Inorganic Iron Oxides	1309-37-1	15mg/m <sup>3</sup>	10mg/m <sup>3</sup>
Chromium(III) Oxide Green(trivalent chromium) <sup>3</sup>	1308-38-9	1mg/m <sup>3</sup>	0.5mg/m <sup>3</sup>

<sup>1</sup>Not Established

<sup>2</sup>Barium Sulfate is listed in SARA III, Part 372, Section 313.

<sup>3</sup>This product contains only 1-3ppm (0.0001%-0.0003%) leachable hexavalent chromium. Trivalent chromium is not specifically listed as a possible carcinogen. Only in Dark Green and Light Green pigmented systems.

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	N/A	Specific Gravity (H2O = 1)	1.55
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation rate (Butyl Acetate = 1)	N/A
Volatile Organic Compounds (VOC)	0 g/L		
Solubility in Water	NONE		
Appearance and Odor	Pigmented viscous liquid. Mild characteristic odor.		

## SECTION IV - FIRE and EXPLOSION HAZARD DATA

Flash Point (Closed Cup Method)	485°F	Flammable Limits	LEL	UEL
			N/A	N/A

**Extinguishing Media** Water spray, Foam, CO<sub>2</sub>, Dry Chemicals.

**Special Firefighting Procedures**

Wear full protective equipment including self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards**

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

Combustion products may be toxic.

## SECTION V - REACTIVITY DATA

Stability	Unstable		Conditions to Avoid
	Stable	X	Excess heating over long periods of time degrades the resin.

**Incompatibility (Materials to Avoid)** Uncontrolled reaction with amines.

**Hazardous Decomposition or Byproducts** By Fire - Carbon monoxide, Carbon dioxide, Nitrogen oxides, Aldehydes.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	Uncontrolled reaction with amines.

## SECTION VI - HEALTH HAZARD DATA

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

**Signs and Symptoms of Exposure** Irritation of skin.

**Health Hazards (Acute and Chronic)**

**ACUTE** - Irritation of skin and dermatitis.

**CHRONIC** - Repeated overexposure will cause severe skin irritation, dermatitis and sensitization. Sensitized persons may experience rapid irritation of skin upon exposure.

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

<b>Carcinogenicity:</b>	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 irritation develops or persists.

**INHALATION** - Move person to fresh air if effects occur. If needed, give oxygen or artificial respiration to improve breathing. Consult physician.

**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.

**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 help cleaning with soap and water, gloves must still be worn. 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 - Chemist

**PLEASE**

**NOTE**

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# Material Safety Data Sheet

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

Date Prepared 8/2/2010

## SECTION I - IDENTIFICATION

**IDENTITY (As Used on Label)** Dur-A-Glaze #4 Hardener: Regular, Fast, Cold Cure, CR4, Damp-Primer, Water Clear

**COMMON NAME** Epoxy Resin Curatives

HAZARD RATING 0 = Least 1 = Slight 2 = Moderate 3 = High 4 = Extreme	Health	3
	Flammability	1
	Reactivity	0
	Personal Protection	G

## SECTION II - PRODUCT COMPONENTS

	CAS.#	OSHA PEL	ACGIH TLV
Benzyl Alcohol	100-51-6	N.E. <sup>1</sup>	N.E.
3, Aminomethyl -3,5,5-Trimethyl	2855-13-2	N.E.	N.E.
1, 5 Pentanediamine, 2 Methyl	15520-10-2	N.E.	N.E.
N, Aminoethyl Piperazine	140-31-8	N.E.	N.E.
Diglycidyl Ether Bisphenol A Epoxy Resin	25085-99-8	N.E.	N.E.
Salicylic Acid	69-72-7	N.E.	N.E.
1, 5 Pentanediamine, 2 Methyl	15520-10-2	N.E.	N.E.
Benzene-1,3-Dimethaneamine	1477-550	N.E.	N.E.
Phenol	108-95-2	N.E.	N.E.
Triphenyl phosphite	101-02-0	N.E.	N.E.

<sup>1</sup>None Established

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

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## SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	485°F	Specific Gravity (H <sub>2</sub> O = 1)	<1
Vapor Pressure (mm Hg)	0.02	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation rate (Butyl Acetate = 1)	N/A
Volatile Organic Compounds (VOC)	0 g/l		
Solubility in Water	Partially soluble.		
Appearance and Odor	Pale yellow colored liquid. Amine odor.		

## SECTION IV - FIRE and EXPLOSION HAZARD DATA

Flash Point (Closed Cup Method)	220°F	Flammable Limits	LEL	UEL
			N/A	N/A
Extinguishing Media	Dry chemicals, carbon dioxide, foam, water spray.			
Special Firefighting Procedures				
Firefighters should wear full emergency equipment with self-contained breathing apparatus. Irritating gases may be generated by fire.				
Unusual Fire and Explosion Hazards				
Cool exposed containers with cold water spray to prevent pressure buildup that may rupture the containers.				

## SECTION V - REACTIVITY DATA

Stability	Unstable	Conditions to Avoid
	Stable	
Incompatibility (Materials to Avoid)	Strong oxidizers and acids.	
Hazardous Decomposition or Byproducts	By Fire- carbon monoxide, carbon dioxide, aldehydes, nitrogen.	
Hazardous Polymerization	May Occur	Conditions to Avoid
	Will Not Occur	

## SECTION VI - HEALTH HAZARD DATA

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	YES	YES	YES
Signs and Symptoms of Exposure	Irritation on skin.		
Health Hazards (Acute and Chronic)			
Note: Persons with lung disorders or who are sensitized should not use this product.			
ACUTE - Irritation on skin and dermatitis.			
CHRONIC - Repeated overexposure will cause severe skin irritation, dermatitis and sensitization. Sensitized persons may experience rapid irritation of skin upon exposure.			
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 - Move person to fresh air if effects occur. If needed, give oxygen or artificial respiration to improve breathing. Consult physician.			
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 or Neoprene gloves.		Eye Protection Splash goggles or face shield.
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 help cleaning with soap and water, gloves must be still be worn. An eye wash station or an adequate supply of clean water must be available at work area.			
Work/Hygenic 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 - Chemist

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Date Prepared 8/2/2010

## SECTION I - IDENTIFICATION

IDENTITY (As Used on Label) **Dur-A-Glaze #4 RESIN/ Bio-Pruf®**

COMMON NAME Epoxy Resin

HAZARD RATING	Health	1
0 = Least	Flammability	1
1 = Slight	Reactivity	0
2 = Moderate	Personal Protection	G
3 = High		
4 = Extreme		

## SECTION II - PRODUCT COMPONENTS

	CAS.#	OSHA PEL	ACGIH TLV
Diglycidyl Ether Bisphenol A Epoxy Resin	25085-99-8	N.E. <sup>1</sup>	N.E.
Aliphatic Glycidyl Ether Diluent	68609-97-2	N.E.	N.E.
Film Additives	Proprietary <sup>2</sup>	N.E.	N.E.

<sup>1</sup>Not Established

<sup>2</sup>The manufacturer of these component states that they will provide additional information to a health professional in the event of an emergency.

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

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## SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	N/A	Specific Gravity (H2O = 1)	>1
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation rate (Butyl Acetate = 1)	N/A
Volatile Organic Compounds (VOC)	0 g/L		
Solubility in Water	None		
Appearance and Odor	Viscous liquid. Mild characteristic odor.		

## SECTION IV - FIRE and EXPLOSION HAZARD DATA

Flash Point (Closed Cup Method)	485°F	Flammable Limits	LEL	UEL
			N/A	N/A

Extinguishing Media Foam, CO<sub>2</sub>, Dry Chemical, Water Spray.

Special Firefighting Procedures

Firefighters should wear full emergency equipment with self-contained breathing apparatus.

Unusual Fire and Explosion Hazards

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

## SECTION V - REACTIVITY DATA

Stability	Unstable		Conditions to Avoid
	Stable	X	Excess heating over long periods of time degrades the resin.
Incompatibility (Materials to Avoid)	Uncontrolled reaction with amines.		
Hazardous Decomposition or Byproducts	Fire- Carbon Monoxide, Carbon Dioxide, Nitrogen Oxide, Aldehydes.		
Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	Uncontrolled reaction with amines.

## SECTION VI - HEALTH HAZARD DATA

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

Signs and Symptoms of Exposure Irritation on skin.

Health Hazards (Acute and Chronic)

ACUTE - Irritation on skin and dermatitis.

CHRONIC - Repeated overexposure will cause severe skin irritation, dermatitis and sensitization.

Sensitized persons may experience rapid irritation of skin upon exposure.

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 - Move person to fresh air if effects occur. If needed, give oxygen or artificial respiration to improve breathing. Consult physician.

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

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

## 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 or Neoprene gloves. Eye Protector Splash goggles or face shield.

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 help cleaning with soap and water, gloves must be still be worn. 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 - Chemist

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# Material Safety Data Sheet

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

Date Prepared 8/2/2010

## SECTION I - IDENTIFICATION

IDENTITY (As Used on Label) Polythane #2 High Solids Resin

COMMON NAME Polyester Resin Solution

HAZARD RATING	Health	2
0 = Least	Flammability	2
1 = Slight	Reactivity	0
2 = Moderate	Personal Protection	G
3 = High		
4 = Extreme		

## SECTION II - PRODUCT COMPONENTS

Component	CAS.#	OSHA PEL	ACGIH TLV
Polyester Polyol	Proprietary <sup>1</sup>	N.E. <sup>2</sup>	N.E.
Propylene Glycol Monomethyl Ether Acetate (PMA)	108-65-6	N.E.	N.E.

<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>Not 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	PMA	145.8 °C	Specific Gravity (H2O = 1)	>1
Vapor Pressure (kPa)	PMA	0.5	Melting Point	N/A
Vapor Density (AIR = 1)	PMA	4.6	Evaporation rate (Butyl Acetate = 1)	PMA= 0.30
Volatile Organic Compounds (VOC)		320.8 g/L		
Solubility in Water	Appreciable			
Appearance and Odor	Clear liquid. Fruity Aromatic Odor.			

## SECTION IV - FIRE and EXPLOSION HAZARD DATA

Flash Point (Closed Cup Method)	PMA	42 °C	Flammable Limits	LEL	UEL
				1.5%	10.0%

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

This material is flammable and may be ignited by heat or flame.

## SECTION V - REACTIVITY DATA

Stability	Unstable		Conditions to Avoid
	Stable	X	Keep containers closed when not in use.
Incompatibility (Materials to Avoid)		Avoid oxidizers and phosphorus - containing materials.	
Hazardous Decomposition or Byproducts		Fire may yield carbon monoxide and/or carbon dioxide.	
Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	Keep containers closed when not in use.

## 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 - Irritant to mucous membranes, eye and skin.

CHRONIC - prolonged exposure may be a nasal irritant.

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

Medical Conditions Generally Aggravated by Exposure

Preexisting disorders may be aggravated: respiratory tract and lung.

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.

**\*\*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	Explosion proof fans when needed.
	Mechanical	Must be sufficient to maintain area below established TLV/PEL.		

Protective Gloves Neoprene rubber gloves. Eye Protection Splash proof goggles.

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

Shut off and eliminate all ignition sources. Keep people away. Add sand, earth or other absorbent to spill area. Ventilate confined spaces. Open windows and doors, minimize breathing vapors and skin contact. Keep spill out of sewers by diking. Observe precautions for volatile, flammable vapors from absorbed material.

Waste Disposal Method

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

Precautions to be Taken in Handling and Storing Keep containers tightly closed when not in use and away from excessive heat and flame. DO NOT pressurize, cut, weld, solder, drill or grind the containers.

Other Precautions None Known.

Prepared by Samet Dy - Urethane Chemist

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# Material Safety Data Sheet

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

Date Prepared 8/2/2010

## SECTION I - IDENTIFICATION

IDENTITY (As Used on Label) Dur-A-Chips/ Cryl-A-Chips

COMMON NAME Pigmented Vinyl Flakes

HAZARD RATING	Health	1
0 = Least	Flammability	0
1 = Slight	Reactivity	0
2 = Moderate	Personal Protection	A
3 = High		
4 = Extreme		

## SECTION II - PRODUCT COMPONENTS

CAS.#	OSHA PEL	ACGIH TLV
Ethylene Glycol 107-21-1	NE <sup>1</sup>	50ppm

<sup>1</sup>None Established

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

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

## SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	N/A	Specific Gravity (H <sub>2</sub> O = 1)	2.5
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation rate (Butyl Acetate = 1)	N/A

Volatile Organic Compounds (VOC) = Zero grams/liter

Solubility in Water Insoluble

Appearance and Odor Various colored flakes.

## SECTION IV - FIRE and EXPLOSION HAZARD DATA

Flash Point (Closed Cup Method)	N/A	Flammable Limits	LEL	UEL
			N/A	N/A

Extinguishing Media Water or carbon dioxide

Special Firefighting Procedures

Use respiratory masks to remove smoke and organic vapors.

Unusual Fire and Explosion Hazards

When polymer burns, water, carbon dioxide, carbon monoxide and smoke are produced.

## SECTION V - REACTIVITY DATA

Stability	Unstable	Conditions to Avoid
	Stable	X Sulfuric acid and alkali materials.

Incompatibility (Materials to Avoid) None known

Hazardous Decomposition or Byproducts Upon burning - acetic acid, acetaldehyde, carbon dioxide.

Hazardous Polymerization	May Occur	Conditions to Avoid
	Will Not Occur	X None known

## SECTION VI - HEALTH HAZARD DATA

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

Signs and Symptoms of Exposure Bronchial irritation.

Health Hazards (Acute and Chronic)

No toxic effects have been noted from inhalation or ingestion in animals with exposure. Human health effects of overexposure may include a respiratory irritation with cough and shortness of breath. Individuals with pre-existing lung diseases may react more to over-exposure.

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

Medical Conditions Generally Aggravated by Exposure

May aggravate pre-existing respiratory conditions.

Emergency and First Aid Procedures

Wash dust from the skin with soap and water. Flush out eyes with generous amounts of water for at least 15 minutes. See a physician if necessary.

## 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	Use when needed.	Special	None
	Mechanical	Not usually required.		

Protective Gloves Not usually required. Eye Protection Safety glasses.

Other Protective Clothing or Equipment

Use a dust mask in a dusty environment.

Work/Hygienic Practices Nothing unusual. Avoid dust.

## SECTION VIII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled

Not a RCRA listed hazardous waste. Sweep up and/or shovel or use a vacuum to clean up spillage.

Deposit into covered container for disposal.

Waste Disposal Method

Dispose of according to Federal, State, or local regulations. If approved, remove to land disposal area.

Precautions to be Taken in Handling and Storing

In case of skin contact, the compound is not likely to be hazardous but cleaning the skin after use is advisable.

Other Precautions None known

Prepared by Samet Dy - Urethane Chemist

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