



Material Safety Data Sheet

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

Date Prepared 9/1/2008

SECTION I - IDENTIFICATION

IDENTITY (As Used on Label) Enviro-Top Hardener

COMMON NAME Waterborne Urethane Cross-Linker

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

SECTION II - PRODUCT COMPONENTS

CAS.#	OSHA PEL	ACGIH TLV
Modified Diluents	Trade Secret ¹	NE ² NE
Hexane, 1,6-Diisocyanate, Homopolymer	28182-81-2	NE NE
Hexamethylene Diisocyanate (HDI)	822-06-0	NE 0.034 mg/m ³

¹The manufacturer of these component states that they will provide additional information to a health professional in the event of an emergency.

²Not 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.E.	Specific Gravity (H ₂ O = 1)	1.35
Vapor Pressure (mm Hg)	N.E.	Melting Point	N.E.
Vapor Density (AIR = 1)	N.E.	Evaporation rate (Butyl Acetate = 1)	<1
Solubility in Water	Reacts slowly.		
Appearance and Odor	Clear liquid. Aromatic odor.		

SECTION IV - FIRE and EXPLOSION HAZARD DATA

Flash Point (Closed Cup Method)	129°F	Flammable Limits	LEL 1%	UEL 11%
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Extinguishing Media Regular foam, carbon dioxide, dry chemical

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. Never use welding or cutting torch on or near drum (even empty) because product (even just empty) can ignite explosively.

SECTION V - REACTIVITY DATA

Stability	Unstable	Conditions to Avoid
	Stable	X Can cause a reaction: Oxidizers, Water, Moisture, Alcohols, Amines, Strong Base, Strong Acid
Incompatibility (Materials to Avoid)	Water, moisture and oxidizing materials.	
Hazardous Decomposition or Byproducts	Silicon Dioxide, Carbon Oxides, Formaldehyde	
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	YES	YES

Signs and Symptoms of Exposure Irritation of skin.

Health Hazards (Acute and Chronic)

ACUTE - Moderate irritation of skin, mild irritation of eyes.

CHRONIC - repeated overexposure may cause: Skin - no known applicable information

Inhale - May cause blindness and damage nervous system

Oral - May cause blindness and possibly death if swallowed

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 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 and 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 A Dy 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

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Date Prepared 9/1/2008

SECTION I - IDENTIFICATION

IDENTITY (As Used on Label) **Enviro-Top Resin/ FP Resin**

COMMON NAME Waterborne Aliphatic Urethane Resin

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

SECTION II - PRODUCT COMPONENTS

	CAS.#	OSHA PEL	ACGIH TLV
Urethane Copolymer	Trade Secret ¹	N.E. ²	N.E.
Modified Liquid Fillers	Trade Secret ¹	N.E. ²	N.E.
Water	7732-18-5	N.E.	N.E.
1-Methyl-2-Pyrrolidone	872-50-4	N.E.	N.E.
Triethylamine	121-44-8	25 ppm	1 ppm

¹The manufacturer of these component states that they will provide additional information to a health professional in event of an emergency.

²Not 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	>200°F	Specific Gravity (H2O = 1)	1.005
Vapor Pressure (mm Hg)	N.E.	Melting Point	N.E.
Vapor Density (AIR = 1)	N.E.	Evaporation rate (Butyl Acetate = 1)	N.E.
Solubility in Water	Soluble		
Appearance and Odor	Translucent White liquid. Mild Amine.		

SECTION IV - FIRE and EXPLOSION HAZARD DATA

Flash Point (Closed Cup Method)	200°F	Flammable Limits	LEL	UEL
			N.E.	N.E.
Extinguishing Media	Water Fog, Foam, CO2, Dry Chemical.			
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 may degrade the resin.
Incompatibility (Materials to Avoid)	None known		
Hazardous Decomposition or Byproducts	By Fire - Carbon oxides, Nitrogen oxides, Ammonia.		
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	YES	YES
Signs and Symptoms of Exposure	Irritation of skin		
Health Hazards (Acute and Chronic)	ACUTE - Irritation of skin, eye, gastrointestinal, and respiratory. CHRONIC - Repeated overexposure may damage liver, kidneys, heart and may cause temporary blurred vision.		
Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	NO	NO	NO

Medical Conditions Generally Aggravated by Exposure

None known

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 ad irritation develops or persists

INHALATION - Move person to fresh air. If needed, give oxygen or artificial respiration to improve breathing. Consult physicia

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 Impermeable 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. 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 A Dy Chemist

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SECTION I - IDENTIFICATION

IDENTITY (As Used on Label) **Enviro-Top LG Additive**

COMMON NAME Waterborne Urethane Low Gloss Initiator

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

SECTION II - PRODUCT COMPONENTS

CAS.#	OSHA PEL	ACGIH TLV
Silica Gel Trade Secret ¹	6 mg/m ³	10 mg/m ³
Water 7732-18-5	NE	NE

¹The manufacturer of these component states that they will provide additional information to a health professional in the event of an emergency.

²Not Established

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

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SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	Silica	N/A	Specific Gravity (H ₂ O = 1)	2.1
Vapor Pressure (mm Hg)		N/A	Melting Point	Silica >1000°C
Vapor Density (AIR = 1)		N/A	Evaporation rate (Butyl Acetate = 1)	<1 water
Solubility in Water	Not Soluble in Water			
Appearance and Odor	Thick White Liquid. Odorless			

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, regular foam, carbon dioxide, dry chemical

Special Firefighting Procedures

Not applicable

Unusual Fire and Explosion Hazards

Fire: This material is not considered flammable nor will it support combustion.

Explosion: Risk of static electric discharge. Ensure grounding when transferring material in flammable atmospheres.

SECTION V - REACTIVITY DATA

Stability	Unstable		Conditions to Avoid
	Stable	X	This material will react with hydrofluoric acid and strong alkaline solutions.
Incompatibility (Materials to Avoid)	Hydrofluoric acid and strong alkaline solutions.		
Hazardous Decomposition or Byproducts	None		
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	YES	YES

Signs and Symptoms of Exposure Irritation to eye, dry skin, or discomfort if inhaled

Health Hazards (Acute and Chronic)

ACUTE - No immediate (acute) health

CHRONIC - No delayed (chronic) health

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 - Do not induce vomiting, wash mouth out with water, give 1/2 pint water to drink.

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

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