



# 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)** Tie Coat Hardener

**COMMON NAME** Epoxy Resin Hardener

HAZARD RATING	Health	2
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
Benzyl Alcohol	100-51-6	N.E. <sup>1</sup>	N.E.
Cycloaliphatic Diamine	2855-13-2	N.E.	N.E.
Salicylic Acid	69-72-7	N.E.	N.E.
Nonyl Phenol	25154-52-3	N.E.	N.E.
Epoxy Resin	25085-99-8	N.E.	N.E.
Tris (2,4,6 Dimethylaminomethyl) Phenol	90-72-7	N.E.	N.E.
N-Aminoethylpiperazine	140-31-8	N.E.	N.E.

<sup>1</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	425F	Specific Gravity (H2O = 1)	Higher
Vapor Pressure (mm Hg)	0.1	Melting Point	N/A
Vapor Density (AIR = 1)	not known	Evaporation rate (Butyl Acetate = 1)	not known
Volatyle Organic Compounds	0 g/L		
Solubility in Water	Partially		
Appearance and Odor	Clear liquid, mild amine odor.		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Closed Cup Method)	220F	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.

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 of 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 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 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** "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 9/1/2008

## SECTION I - IDENTIFICATION

**IDENTITY (As Used on Label)** Tie Coat Resin

**COMMON NAME** Modified Epoxy Resin Solution

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

## SECTION II - PRODUCT COMPONENTS

	CAS.#	OSHA PEL	ACGIH TLV
Epoxy Resin	25085-99-8	N.E. <sup>1</sup>	N.E.
Alkyl Phenol Blocked Polyisocyanate	Proprietary <sup>2</sup>	N.E.	N.E.
Propylene Glycol Mono Methyl Ether (PM)	107-98-2	200ppm	100ppm
Aliphatic Glycidyl ether Diluent	68609-97-2	N.E.	N.E.
Organosiloxane	2530-838	N.E.	N.E.
Xylene <sup>3</sup>	1330-20-7	100ppm	100ppm
Methyl Isobutyl Ketone <sup>3</sup>	108-10-1	100ppm	50ppm

<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.

<sup>3</sup>Xylene and MIBK are regulated by SARA III, 40CFR372, Section 313.

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	290F	Specific Gravity (H2O = 1)	>1
Vapor Pressure (mm Hg)	7	Melting Point	N/A
Vapor Density (AIR = 1)	3.7	Evaporation rate (Butyl Acetate = 1)	0.75
Volatile Organic Compounds	103 g/L		
Solubility in Water	Negligible		
Appearance and Odor	Pale yellow color. Solvent odor.		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Closed Cup Method)	Xylene 81F	Flammable Limits	LEL	UEL
		Xylene	1%	7%

Extinguishing Media Dry chemicals, carbon dioxide, foam.

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	Avoid storage above 90F.
Incompatibility (Materials to Avoid)	Acids, bases, amines.	
Hazardous Decomposition or Byproducts		
By fire- carbon monoxide, carbon dioxide, nitrogen oxides.		
Hazardous Polymerization	May Occur	Conditions to Avoid
	Will Not Occur	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, eyes or respiratory tract.		
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 liver and kidney damage. Lung disorders may be aggravated by exposure.			
Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	NO	NO	NO

Medical Conditions Generally Aggravated by Exposure

Allergy, eczema, skin conditions, and lung disorders.

Emergency and First Aid Procedures

SKIN - remove contaminated clothing. Clean affected areas with mild soap and water. If irritation or redness develops and persists, seek medical attention.

EYES - hold eyelids apart and flush with clean water for 15 minutes. 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- GET 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 1919.134 that is effective for solvent/amine.SCBA or air-supplied respirators with full facepiece must be used when TLV/PEL are 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 goggles or face shield.

Other Protective Clothing or Equipment

Use other protective equipment such as rubber aprons and a faceshield 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 maintained. Use air-supplied respirators in enclosed areas and when PEL/TLV is higher than established levels.

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 flammable vapors in absorbed materials.

Waste Disposal Method

Burn in an adequate incinerator or bury in an approved landfill in accordance with Federal, State, and Local 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 - 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."