

MATERIAL SAFETY DATA SHEET
EPOXY REPAIR MATERIALS, EPOXY ADHESIVES, RIGID URETHANE FOAM & Job Size MINI TWIN SYSTEM
10/20/05

PRODUCTS COVERED

EPOXY REPAIR MATERIALS & ADHESIVES: CE-CB, CE-PB, CE-RL, CE-SS, CE-SU, CZTEC, RE-A, TE-R1&2, TP-E1&2

RIGID URETHANE FOAM: CF-R, **Job Size MINI TWIN SYSTEM:** CX-B, CX-F, CX-P, CX-Q, CX-R

SECTION I-MANUFACTURER

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SECTION II-PRODUCTS

<u>Stock Number</u>	<u>Product Name on Label</u>	<u>Numbers of Ingredients in Products</u>	<u>HMIS RATING</u>			<u>Appearance and Odor</u>
			<u>H</u>	<u>F</u>	<u>R</u>	
Epoxy Repair Materials & Adhesives						
CE-CB	CODE BLUE	1,8,11,22,26,38	3*	1	0	Blue viscous liquid, floral odor
CE-PB	PANEL BONDER 3500	1,2,7,12,13,14	3	1	0	Black liquid, mercaptan odor
CE-RL	RED LINE	1,8,11,22,26,38	3*	1	0	Red viscous liquid, floral odor
CE-SS	EPOXY SEAM SEALER	1,9,10,29,32	3	1	0	Yellow liquid, mercaptan odor
CE-SU	ULTRA-VIS II	1,10,11,28,29,32	3	1	0	Yellow liquid, mercaptan odor
CZTEC	QUICK SET	5,20	3	1	0	Very light yellow liquid, mercaptan odor
RE-A	AUTOMOTIVE QUICKSTEEL	1,24	1	0	0	Dark Gray putty stick, no odor
TE-R1	RIGID RED Resin	8,11,22,26,30,38	3*	1	0	Gray-White, very viscous liquid, bland odor
TE-R2	RIGID RED Hardener	1,11,22,25,26,35	3*	1	0	Red, very viscous liquid, floral odor
TP-E1	TWO PART EPOXY Resin	8,11,22,26,30,38	3*	1	0	White, very viscous liquid, bland odor
TP-E2	TWO PART EPOXY Hardener	1,11,22,25,26,35	3*	1	0	Blue, very viscous liquid, floral odor
Rigid Urethane Foam:						
CF-R	RIGI-FOAM	15,24,27,31	3	1	0	Brown liquid, bland odor
Job Size Mini Twin System						
CX-B	BlaxTer	1,4,10,11,28,29,33	3*	1	0	Black liquid, mercaptan odor
CX-F	FlexiFoam	6,17,18,27,34,37	3	1	0	Black liquid, bland odor
CX-P	PlasTer	1,3,10,11,16,19,23,29,33,38,39	3*	1	0	Gray liquid, mercaptan odor
CX-Q	QwixTer	19,33,36	3	1	0	Clear liquid, mercaptan odor
CX-R	RigiFoam	15,24,27,31	3	1	0	Light brown liquid, bland odor

*Chronic health effects are possible. See **SECTION VI-HEALTH HAZARD DATA.**

VOC CONTENT

<u>Stock Number</u>	<u>Pounds per Gallon</u>	<u>Grams per Liter</u>	<u>Pounds per Package</u>
CE-SS, CE-SU	0.04	4.8	0.0031
All Others	0	0	0

SECTION III-HAZARDOUS INGREDIENTS

<u>Ingredients</u>	<u>CAS Number</u>	<u>Exposure Limits in ppm (parts per million)</u>
1. 2,4,6-Tri(Dimethylaminomethyl) Phenol	90-72-2	Not Established
2. 3,3'-(Oxybis(2,1-Ethanediyloxy))BIS-1-Propanamine	4246-51-9	Not Established
3. 3-Triethoxysilyl 1-Propanamine	919-30-2	Not Established
4. Amine/Mercaptan Blend	Mixture	Not Established
5. Amine/Mercaptan Hardener	122-60-1	Not Established
6. Amine Salts	Mixture	Not Established
7. Amorphous Silica**	60676-86-0	0.1 mg/m ³ A Dust
8. Bisphenol A Epoxy Resin	25085-99-8	Not Established
9. Bisphenol A Epoxy Resin Mixture	Mixture	Not Established
10. Bisphenol A Polyglycidyl Ether	25068-38-6	Not Established
11. Calcium Carbonate**	1317-65-3	10 mg/m ³ A Dust
12. Carbon Black**	1333-86-4	3.5 mg/m ³ A,0
13. Colloidal Silica**	97762-90-7	Not Established
14. Crystalline Silica (Cristobalite)**	14464-46-1	0.05 mg/m ³ A,0 R
15. Dibromoneopentylene Glycol	Unknown	Not Established
16. Dibutyl Phthalate	84-74-2	5 mg/m ³
17. Dibutyltin Dilaurate (As Tin)	77-58-7	0.1 mg/m ³ (Skin)
18. Dipropylene Glycol	25265-71-8	Not Established
19. Epoxy NOVOLAC Resin	28064-14-4	Not Established
20. Epoxy Resin	2238-07-5	Not Established
21. Epoxy Resin (Diglycidyl Ether of Bisphenol A)	25068-38-6	Not Established
22. Fumed Silica**	7631-86-9	10 mg/m ³ A Dust
23. Glycidoxypropyl-Trimethoxy Silane	2530-83-8	Unknown
24. Isocyanate Prepolymer	Mixture	Not Established
25. Liquid Polymercaptan	CAS Unknown	Not Established
26. Magnesium Silicate**	14807-96-6	2 mg/m ³ A Dust
27. Methylene bisphenyl isocyanate	101-68-8	0.005 ppm A
28. Modified Bisphenol Resin	Mixture	Not Established
29. Modified Diglycidyl Ether	68909-14-8	Not Established
30. Nonyl Phenol	25154-52-3	Not Established
31. Polyether Polyol	Mixture	Not Established

Abbreviations

A means ACGIH Threshold Limit Value (TLV),
O means OSHA Permissible Exposure Limit (PEL),
> means greater than,
R means Respirable fraction,
Skin means exposure to the skin must be considered.
******These materials only contribute to the hazard if the cured material is sanded and dust is inhaled.

NOTE: All listed ingredients are present in the products at unknown percentages greater than 1.

DISCLAIMER: The information contained in this MSDS is believed to be accurate and reliable as of the date indicated. **Crest Industries, Inc.** assumes no legal responsibility and makes no representation, warranty or guarantee, expressed or implied, as to the completeness or accuracy of the information. It is offered solely for your consideration, investigation and verification. The user is ultimately responsible for the safe use of the material in accordance with applicable federal, state, provincial and local laws and regulations.

Ingredients	CAS Number
32. Polymercaptan Resin	Trade Secret
33. Polymercaptan Resin	Proprietary
34. Polymethylene Polyphenyl Isocyanate	9016-87-9
35. Sodium Borosilicate Glass**	Mixture
36. Tertiary Amine	Proprietary
37. Tertiary Amine	Mixture
38. Titanium Dioxide**	13463-67-7
39. Triethylenediamine	280-57-9

Exposure Limits in ppm (parts per million)
Not Established
Not Established
Not Established
10 mg/m ³ A Dust
Not Established
Not Established
10 mg/m ³ A Dust
Not Established

SECTION IV-PHYSICAL DATA

Product Density (water = 1): >1. **Solubility in Water:** <1%

Vapor Density: Not Applicable

SECTION V-FIRE AND EXPLOSION DATA

D.O.T. Flammability Class: Non Flammable **Flash Point (Pensky-Martin Closed Cup Method) All Stock Numbers:** >200°F (>93°C).

Vapor Pressure (mm Hg at 20°C): Not Applicable **Evaporation Rate (n-Butyl Acetate=1):** Not Applicable **Boiling Point:** Not Applicable

Flammable Limits in %: Not Applicable **Autoignition Point:** Not Applicable **Extinguishing Media:** Water, foam, carbon dioxide, dry chemical. **Special Fire Fighting Procedures:** Full protective equipment, including self-contained breathing apparatus is recommended. During a fire highly toxic gasses may be generated by combustion or thermal decomposition

Unusual Fire and Explosion Hazards: None

SECTION VI-HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE: Skin and eye contact.

SIGNS AND SYMPTOMS OF EXPOSURE:

SKIN CONTACT:

Acute Exposure: Skin irritation resulting in reddening, swelling, rash, scaling or blistering. Some persons may develop skin sensitization. Cured material is difficult to remove. **Chronic Exposure:** Prolonged contact can cause reddening, swelling, rash, scaling or blistering. In sensitized persons these symptoms may occur as a result of contact with very small amounts of product.

EYE CONTACT:

Acute Exposure: Product is irritating and can cause tearing, reddening and swelling accompanied by pain. **Chronic Exposure:** As in acute exposure but to a lesser degree.

INHALATION:

Acute Exposure: Unlikely due to low volatility of the products.

Chronic Exposure: Unlikely.

INGESTION:

Acute Exposure: Irritation and possible corrosive action in the mouth and, if swallowed, esophagus, stomach and intestinal tract.

Chronic Exposure: Unknown.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Skin allergies, eczema and eye diseases may be aggravated by overexposure to these products.

CARCINOGENICITY: Ingredients not listed by NTP or OSHA. **NOTE:** IARC has determined that Crystalline Silica (Quartz and Cristobalite) are carcinogenic. **11. Calcium Carbonate** and **26. Magnesium Silicate** contain small but detectable amounts of Crystalline Silica. Quartz and Cristobalite, if inhaled, can cause Lung fibrosis and Silicosis that may result in cancer of the lungs. Under normal use conditions the Quartz and Cristobalite are not free to be inhaled as dust.

WARNING: If the cured CE-CB, CE-PB, CE-RL, CE-SU, TE-R, TP-E, CX-B and CX-P are sanded, inhalation of the sanding dust must be avoided. **WEAR A DUST MASK.**

SECTION VII-EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT: Remove contaminated clothing immediately. Wash affected areas thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse. Seek medical attention if irritation develops or persists.

EYE CONTACT: Flush with clean, lukewarm water (low pressure) for at least 15 minutes while lifting eyelids. Refer person to physician for immediate attention.

INGESTION: Give two glasses of water and consult physician, hospital emergency room or poison control center immediately. Have list of ingredients available. Do not induce vomiting!

INHALATION: Not Applicable

SECTION VIII-EMPLOYEE PROTECTION RECOMMENDATIONS

EYE PROTECTION: Wear safety glasses.

SKIN PROTECTION: Wear chemical resistant gloves (polyethylene or rubber). Cover as much of the skin as possible with appropriate clothing.

VENTILATION AND RESPIRATORY PROTECTION: Due to the low volatility of these products respiratory protection is not normally necessary unless proper ventilation is impossible. **NOTE:** Always wear a dust mask when sanding any of the products on this MSDS. Observe OSHA regulations (29 CFR 1910.134) for dust mask use.

OTHER PROTECTIVE MEASURES: Eyewash stations should be available. Educate and train employees in safe use of products. Follow all label instructions. Persons with recurrent skin eczema or sensitization should be excluded from working with these materials unless protective gloves are worn.

SECTION IX-REACTIVITY DATA

STABILITY: Stable under normal room conditions.

HAZARDOUS POLYMERIZATION: Not Applicable

INCOMPATIBILITY (Materials to Avoid): Resins: strong amines, acids, bases and oxidizing agents. **Hardeners:** Strong oxidizing agents. **CONDITIONS TO AVOID:** Excessive heat buildup will result from mixing more than one pound (total weight) of resin and hardener.

HAZARDOUS DECOMPOSITION PRODUCTS: By high heat and fire: carbon dioxide, carbon monoxide, oxides of nitrogen, hydrocarbon fumes, sulfur oxides, soot and smoke.

SECTION X-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Prevent further spillage. Scrape or wipe up material.

WASTE DISPOSAL METHOD: Follow all federal, state and local environmental control regulations. Incineration of the materials is the preferred method. Cured material may be put in household trash.

RCRA STATUS: Since these products are toxic they are hazardous when discarded.

SECTION XI-SPECIAL PRECAUTIONS & STORAGE DATA

STORAGE TEMPERATURE:

MINIMUM / MAXIMUM: 50°F (10°C) / 120°F (49°C)

RECOMMENDED SHELF LIFE: One year

PRECAUTIONS TO BE TAKEN IN HANDLING, STORAGE AND USE: Do not store in temperatures above 120°F (49°C) or in direct sunlight. Avoid contact with skin and eyes. Wash hands after use and before eating, drinking, smoking or using the toilet. Employee education and training in the safe use and handling of these products is required under the OSHA Hazard Communication Standard (29CFR 1910.1200).

SECTION XII-CALIFORNIA PROPOSITION 65 WARNINGS

According to the California Safe Drinking Water and Toxic Enforcement Act (PROPOSITION 65) "No person in the course of doing business shall knowingly and intentionally expose any individual to a chemical known to the State of California to cause cancer, birth defects or reproductive toxicity without first giving clear and reasonable warning to such individuals of such an exposure". **WARNING:** CE-CB, CE-PB, CE-RL, CE-SU, TE-R, TP-E, CX-B and CX-P contain a chemical known to the State of California to cause cancer.

SECTION XIII-VOLATILE ORGANIC COMPOUND (V.O.C.) CONTENT ACCORDING TO THE FEDERAL EPA

See SECTION II.

SECTION XIV-OZONE DEPLETION IN THE UPPER ATMOSPHERE

No upper atmosphere ozone depleting substances are contained in these products.

KEEP OUT OF THE REACH OF CHILDREN!