

**Kardol Quality Products**  
285 S. West Street  
Lebanon, Ohio 45036  
513-933-8206 Fax: 513-932-6900

**MATERIAL SAFETY DATA SHEET**  
**# 500121**  
**Trade Name: Epoxy Glue Hardener**

**Section 1: Material Identification**

Chemical Name	CAS #	Weight Percent	Occupational Exposure Limits			Vapor PI@ Temp MM Hg
			OSHA PEL	AGGIH TLV	Other	
Aliphatic						
Polyaminoamide	68910-93-0	70-80%	NE			
Nonylphenol	84852-15-3	10-15%	NE			
Amorphous Silicate	112945-52-5	5-7%	15 mg/m3			
Ethylene Glycol	107-21-1	1-2%	50 ppm			

\* Indicates toxic chemical (s) subject to the reporting requirements of section 313 of Title III and 40CRF 372.

**Section 2: Physical & Chemical Properties**

**Boiling Point:** NE  
**Vapor Density:** Heavier than air  
**Evaporation:** N/A  
**Vapor Pressure:** NE  
**Specific Gravity:** 1.80 gm/cc  
**Appearance & Odor:** Amber paste, slight amine odor  
**Solubility in Water:** NE  
**Material V.O.C.:**

**Section 3: Fire & Explosion Hazard Data**

**Flash Point:** Over 200° F (Tag closed cup)  
**Flammability Limits:** LEL- NE UEL- NE  
**Extinguisher Media:** Foam, carbon dioxide, dry chemical, water fog  
**Special Fire Fighting:** Full protective equipment including self-contained breathing apparatus is recommended. Water from fog nozzles may be used to cool containers to prevent pressure buildup and possible auto ignition when exposed to heat.  
**Unusual Fire Hazard:** Keep containers tightly closed. Isolate from heat, sparks and open flame. Closed containers may explode if exposed to extreme heat. When heated above the flash point, emits flammable vapor which when mixed with air can burn or become explosive. Vapors may be heavier than air and may travel along the floor before ignition and flash back to the vapor source. Never use welding or cutting torches on or near containers, even if empty.

#### Section 4: Reactivity Hazard Data

**Stability:** Stable, Polymerization will not occur.  
**Conditions to Avoid:** Heat, open flames, static electricity, electrical equipment, pilot lights, sparks and all other sources of ignition.  
**Avoid:** Strong acids, alkalies, and oxidizers.  
**Hazardous Decomposition:** Thermal decomposition or combustion can produce fumes containing organic acids, carbon dioxide, carbon monoxide and smoke.

#### Section 5: Health Hazard Data

**Inhalation Risks and Symptoms of Exposure:** May cause nose and throat irritation. Repeated and prolonged exposure to organic solvents may lead to permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of co-ordination are signs that solvent levels are too high. Individuals with breathing problems must not be exposed to this product.

**Skin and Eye Contact Health Risks and Symptoms:** May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Carcinogenicity:** NPT Carcinogen: NO IARC Monographs: NO OSHA Regulated: YES

**Medical Conditions Generally Aggravated by Exposure:** Individuals with pre-existing eye, liver, kidney, chronic lung or other respiratory disorders should not use this product.

#### EMERGENCY FIRST AID PROCEDURE:

**Eye Contact:** Flush promptly with large amounts of water for 15 minutes, seek medical attention immediately.

**Skin Contact:** Wash thoroughly with soap and water. Remove contaminated clothing. If redness or irritation persists, seek medical attention.

**Inhalation:** Remove victim to a well ventilated area. Use oxygen or artificial respiration as required. Seek medical attention if breathing difficulty persists.

**INGESTION:** DO NOT INDUCE VOMITING. Call a physician immediately and have the names of all ingredients available. Keep victim warm and quiet. Aspiration of material into lungs can cause chemical pneumonia which can be fatal.

#### Section 6: Control and Protective Measures

**Respiratory Protection:** The manufacturer takes no responsibility for determining what protection is necessary in any specific application. The general information given should be used with discretion. Avoid breathing vapors or spray mist. If workplace exposure limits of product or any component is exceeded, a properly fitted NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. Wear a respirator during application and until all vapors are exhausted. In confined areas, wear a positive pressure supplied air respirator (TC-10c). In all cases, follow respirator manufacturer's directions for respirator use. See your safety equipment supplier for additional important information. Do not allow anyone without protection into the painting area.

**Ventilation:** Provide sufficient ventilation to keep contaminates below OSHA requirements.

- Protective Gloves:** Wear neoprene gloves impervious to organic solvents at all times.
- Eye Protection:** Chemical splash goggles in compliance with OSHA regulations are advised. However, OSHA regulations also permit the use of other safety eye wear designed to protect against liquid chemical splash.
- Other Protective Clothing:** To prevent repeated or prolonged skin contact, wear impervious boots and clothing.
- Work/Hygienic Practices:** Eye wash and safety showers in the work place are recommended. Always wash hands after using this product and before eating or smoking.

<b>Section 7: Precautions for Safe Handling &amp; Use</b>
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- IN CASE OF SPILL:** Remove all sources of ignition (sparks, flame and hot surfaces). Avoid breathing vapors. Stay upwind and away from spill unless wearing appropriate protective equipment. Ventilate enclosed areas as quickly as possible. Stop and contain discharge if it may be done safely. Use non-sparking tools for cleanup of spill. Remove spill with an inert absorbent and non-sparking material. Dispose of in accordance with local, state and federal regulations. Do not incinerate material.
- WASTE DISPOSAL:** DO NOT FLUSH INTO SEWER, WATERSHED OR WATERWAY. Dispose of in accordance with local, state and federal regulations. Do not incinerate closed or empty containers.
- Other Precautions:** Containers should be grounded when pouring. Do not take internally. Wash hands after use and before eating or smoking. Empty containers may contain hazardous residue and explosive vapors. Keep away from heat, sparks and flame. Do not cut, puncture or weld on or near emptied containers. Follow all hazardous precautions given in this data sheet until the container is thoroughly cleaned or destroyed. Employees should be trained in safety measures consistent with using this product.

<b>DOT</b>	<b>HAZARD INDEX</b>
Shipping Name:	Health: 2
Not Regulated	Flammability: 1
	Reactivity: 0

**24 HOUR EMERGENCY NUMBER**  
**1-800-424-9300**

**KEEP OUT OF REACH OF CHILDREN!!!!**

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**MATERIAL SAFETY DATA SHEET**

**# 500120**

**Trade Name: Epoxy Glue Resin**

**Section 1: Material Identification**

Chemical Name	CAS #	Weight Percent	Occupational Exposure Limits			Vapor PI@ Temp MM Hg
			OSHA PEL	AGGIH TLV	Other	
Bisphenol A Diglycidyl Ether	25068-38-6	95%			NE	
Amorphous Silicate	112945-52-5	3-5%	15 mg/m3			
Ethylene Glycol	107-21-1	0-1%	50 ppm			

\* Indicates toxic chemical (s) subject to the reporting requirements of section 313 of Title III and 40CRF 372.

**Section 2: Physical & Chemical Properties**

**Boiling Point:** 392°F  
**Vapor Density:** Heavier than air  
**Evaporation:** N/A  
**Vapor Pressure:** 1 mm Hg @ 365°F  
**Specific Gravity:** 1.80 gm/cc  
**Appearance & Odor:** White Paste w/ slight odor  
**Solubility in Water:** NE  
**Material V.O.C.:**

**Section 3: Fire & Explosion Hazard Data**

**Flash Point:** 495° F (Tag closed cup)  
**Flammability Limits:** LEL- NE UEL- NE  
**Extinguisher Media:** Foam, carbon dioxide, dry chemical, water fog  
**Special Fire Fighting:** Full protective equipment including self-contained breathing apparatus is recommended. Water from fog nozzles may be used to cool containers to prevent pressure buildup and possible auto ignition when exposed to heat.  
**Unusual Fire Hazard:** Keep containers tightly closed. Isolate from heat, sparks and open flame. Closed containers may explode if exposed to extreme heat. When heated above the flash point, emits flammable vapor which when mixed with air can burn or become explosive. Vapors may be heavier than air and may travel along the floor before ignition and flash back to the vapor source. Never use welding or cutting torches on or near containers, even if empty.

#### Section 4: Reactivity Hazard Data

**Stability:** Stable, Polymerization will not occur.  
**Conditions to Avoid:** Heat, open flames, static electricity, electrical equipment, pilot lights, sparks and all other sources of ignition.  
**Avoid:** Strong acids, alkalies, and oxidizers.  
**Hazardous Decomposition:** Thermal decomposition or combustion can produce fumes containing organic acids, carbon dioxide, carbon monoxide and smoke.

#### Section 5: Health Hazard Data

**Inhalation Risks and Symptoms of Exposure:** May cause nose and throat irritation. Repeated and prolonged exposure to organic solvents may lead to permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of co-ordination are signs that solvent levels are too high. Individuals with breathing problems must not be exposed to this product.

**Skin and Eye Contact Health Risks and Symptoms:** May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Carcinogenicity:** NPT Carcinogen: NO      IARC Monographs: NO      OSHA Regulated: YES

**Medical Conditions Generally Aggravated by Exposure:** Individuals with pre-existing eye, liver, kidney, chronic lung or other respiratory disorders should not use this product.

#### EMERGENCY FIRST AID PROCEDURE:

**Eye Contact:** Flush promptly with large amounts of water for 15 minutes, seek medical attention immediately.

**Skin Contact:** Wash thoroughly with soap and water. Remove contaminated clothing. If redness or irritation persists, seek medical attention.

**Inhalation:** Remove victim to a well ventilated area. Use oxygen or artificial respiration as required. Seek medical attention if breathing difficulty persists.

**INGESTION:** DO NOT INDUCE VOMITING. Call a physician immediately and have the names of all ingredients available. Keep victim warm and quiet. Aspiration of material into lungs can cause chemical pneumonia which can be fatal.

#### Section 6: Control and Protective Measures

**Respiratory Protection:** The manufacturer takes no responsibility for determining what protection is necessary in any specific application. The general information given should be used with discretion. Avoid breathing vapors or spray mist. If workplace exposure limits of product or any component is exceeded, a properly fitted NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. Wear a respirator during application and until all vapors are exhausted. In confined areas, wear a positive pressure supplied air respirator (TC-10c). In all cases, follow respirator manufacturer's directions for respirator use. See your safety equipment supplier for additional important information. Do not allow anyone without protection into the painting area.

**Ventilation:** Provide sufficient ventilation to keep contaminates below OSHA requirements.

**Protective Gloves:** Wear neoprene gloves impervious to organic solvents at all times.

**Eye Protection:** Chemical splash goggles in compliance with OSHA regulations are advised. However, OSHA regulations also permit the use of other safety eye wear designed to protect against liquid chemical splash.

**Other Protective Clothing:** To prevent repeated or prolonged skin contact, wear impervious boots and clothing.

**Work/Hygienic Practices:** Eye wash and safety showers in the work place are recommended. Always wash hands after using this product and before eating or smoking.

<b>Section 7: Precautions for Safe Handling &amp; Use</b>
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**IN CASE OF SPILL:** Remove all sources of ignition (sparks, flame and hot surfaces). Avoid breathing vapors. Stay upwind and away from spill unless wearing appropriate protective equipment. Ventilate enclosed areas as quickly as possible. Stop and contain discharge if it may be done safely. Use non-sparking tools for cleanup of spill. Remove spill with an inert absorbent and non-sparking material. Dispose of in accordance with local, state and federal regulations. Do not incinerate material.

**WASTE DISPOSAL:** DO NOT FLUSH INTO SEWER, WATERSHED OR WATERWAY. Dispose of in accordance with local, state and federal regulations. Do not incinerate closed or empty containers.

**Other Precautions:** Containers should be grounded when pouring. Do not take internally. Wash hands after use and before eating or smoking. Empty containers may contain hazardous residue and explosive vapors. Keep away from heat, sparks and flame. Do not cut, puncture or weld on or near emptied containers. Follow all hazardous precautions given in this data sheet until the container is thoroughly cleaned or destroyed. Employees should be trained in safety measures consistent with using this product.

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