

Effective Date: 7/11/07

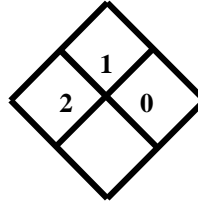
Material Safety Data Sheet

MSDS No: 5627

**1. PRODUCT IDENTIFICATION**

Trade Name: Araldite 2013/A

Chemical Family: Epoxy



NFPA RATING

Health:	2
Flammability:	1
Reactivity:	0
Personal Protection:	

HMIS RATING

Intended Use or Product Type: Metal bonding adhesive resin

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

O S H A	CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS				CARCINOGEN STATUS			
			ACGIH		OSHA		MFR.	IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
*	1333-86-4	Carbon Black  Common Name: Carbon black Concentration: 0.10 - 1.00 % by wt	3.5 mg/m3	NE	3.5 mg/m3	NE	NE	Yes	NR	NR
*	25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane Bisphenol A diglycidyl ether polymer Concentration: 1.00 - 5.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	40216-08-8	Formaldehyde, polymer with (chloromethyl)oxirane, 4,4'-(1-methylethylidene)bis(phenol) and phenol Common Name: Mixture of Bis A and Bis F epoxy resins Concentration: 30.00 - 60.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	68609-97-2	Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. C12 and C14 Alkyl Glycidyl Ethers Concentration: 3.00 - 7.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	78705-33-6	Decanedioic Acid, Polymer with (Chloromethyl)Oxirane, 2,2-Dimethyl-1,3-Propanediol and 4,4'-(1-Methylethylidene)bis[Phenol] Polyester modified epoxy resin	NE	NE	NE	NE	NE	NR	NR	NR

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Concentration	1.00 - 5.00 % by wt								
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NE = Not Established NR = Not Reviewed \* = OSHA Hazardous Ingredient

**3. HAZARDS IDENTIFICATION**

**Emergency Overview:** Causes skin and eye irritation. May cause allergic skin reaction.

**Primary Route(s) of Entry:** Dermal; heated product may produce inhalable vapors.

**Carcinogenicity (NTP, IARC, OSHA):** This product contains carbon black which is classified as a carcinogen by IARC (2B, possibly carcinogenic to humans) and NIOSH.

**4. FIRST AID MEASURES**

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Skin:** Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes. Seek immediate medical attention.

**Inhalation:** Remove to fresh air. Seek immediate medical attention.

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

**Overexposure Effects:** Causes skin and eye irritation. May cause allergic skin reaction.

**Medical Conditions Aggravated by Exposure:** Skin and eye conditions.

**Additional Information:** Referral to a physician is recommended if there is any question about the seriousness of any injury.

**5. FIRE FIGHTING MEASURES**

**Flash Point:** > 200°F (> 93 °C)

**Flash Point Method Used:** Estimated

**Flammable Limits in Air (Lower - % by volume):** Not established

**Flammable Limits in Air (Upper - % by volume):** Not established

**Fire Fighting Extinguishing Media:** Carbon dioxide, dry chemical, foam, water.

**Fire Fighting Equipment:** Use self-contained breathing apparatus.

**Fire and Explosion Hazards:** Decomposition and combustion products may be toxic.

**6. ACCIDENTAL RELEASE MEASURES**

**Accidental Release Measures:** Remove spillage by absorbing in absorbent material.

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## 7. HANDLING AND STORAGE

**Signal Word:** Warning!

**Precautions:** Can cause skin irritation, eye irritation, and allergic skin reaction. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

**Other Handling Information:** Nuisance dust may be generated when sanding or sawing cured material.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Skin Protection:** Wear impermeable gloves.

**Respiratory Protection:** Use NIOSH approved organic vapor cartridge respirator when vapor/mist exposure is likely.

**Eye Protection:** Wear splash-proof chemical goggles.

**Engineering Controls:** General mechanical and local exhaust in accordance with ACGIH recommendations.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Color:</b>	Grey
<b>Odor Threshold:</b>	Not Determined
<b>Physical State:</b>	Thixotropic Paste
<b>Solubility in Water:</b>	Insoluble
<b>Vapor Pressure:</b>	0.1 Pa at 20°C (68 °F)
<b>Specific Gravity:</b>	1.4 (water = 1)
<b>Boiling Point:</b>	Not Determined
<b>Melting Point:</b>	Not Determined
<b>Freezing Point:</b>	Not Determined
<b>Evaporation Rate:</b>	Not Determined
<b>Density:</b>	Not Determined
<b>Vapor Density:</b>	Not Determined
<b>VOC:</b>	0 g/L
<b>pH:</b>	Not Determined
<b>Coefficient of water/oil:</b>	Not Evaluated

**Percent Volatile:** Not determined.

## 10. STABILITY AND REACTIVITY

**Conditions to Avoid:** Excessive heat for prolonged periods of time.

**Stability:** Stable.

**Incompatibility:** Strong oxidizers, acids and bases.

**Hazardous Decomposition Products:** Combustion may form toxic materials, such as carbon dioxide, carbon monoxide.

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**Hazardous Polymerization:** Will not occur.**11. TOXICOLOGICAL INFORMATION****Sensitization:** Possible in susceptible individuals.**Carcinogenicity:** This product contains carbon black which is classified as a carcinogen by IARC (2B, possibly carcinogenic to humans) and NIOSH.**Skin Irritation:** Irritant.**Eye Irritation:** Irritant.**12. ECOLOGICAL INFORMATION****13. DISPOSAL CONSIDERATIONS****Waste Disposal Method:** Consult qualified local or corporate personnel for method that will comply with local, state and federal health and environmental regulations.**14. TRANSPORT INFORMATION****DOT: Non-Bulk****Proper Shipping Name:** Not Regulated**IATA: Non-Bulk****Proper Shipping Name:** Not Regulated**IMDG: Non-Bulk****Proper Shipping Name:** Not Regulated**TDG: Non-Bulk****Proper Shipping Name:** Not Regulated**15. REGULATORY INFORMATION****US Federal Regulations:****Occupational Safety and Health Act (OSHA):** This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.**Resource Conservation and Recovery Act (RCRA):** Not a hazardous waste under RCRA (40 CFR 261).**SARA Title III: Section 313 Toxic Chemical List (TCL):** This product does not contain any chemicals for routine annual toxic chemical release reporting under Section 313 (40 CFR 372).**TSCA Section 8(b) - Inventory Status:** All chemical components of this product are in compliance with TSCA inventory requirements.

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**TSCA Section 12(b) - Export Notification:** This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

### **International Regulations:**

**Canadian Inventory Status:** All components in this product are included on the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL).

**Canadian WHMIS:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. D2A D2B

### **State Regulations:**

**California Proposition 65:** This product does not contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

**Pennsylvania Right-to-Know:** The following is required composition information:

Chemical Name: Formaldehyde, polymer with (chloromethyl)oxirane, 4,4'-(1-methylethylidene)bis(phenol) and phenol  
Common Name: Mixture of Bis A and Bis F epoxy resins  
CAS Number: 40216-08-8  
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: MICA  
CAS Number: 12001-26-2  
Comment: Hazardous Substance

Chemical Name: Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.  
Common Name: C12 and C14 Alkyl Glycidyl Ethers  
CAS Number: 68609-97-2  
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Decanedioic Acid, Polymer with (Chloromethyl)Oxirane, 2,2-Dimethyl-1,3-Propanediol and 4,4'-(1-Methylethylidene)bis[Phenol]  
Common Name: Polyester modified epoxy resin  
CAS Number: 78705-33-6  
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Titanium Oxide  
Common Name: Titanium dioxide  
CAS Number: 13463-67-7  
Comment: Hazardous Substance

Chemical Name: Sulfuric acid, barium salt (1:1)  
Common Name: Barium Sulfate  
CAS Number: 7727-43-7  
Comment: Hazardous Substance

## **16. OTHER INFORMATION**

**MSDS No:** 5627  
**Approved By:** Dianne Blessing  
**Title:** EHS Specialist

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