

24-Hour Emergency Phone: (800) 328-8501

Effective Date: 7/11/07

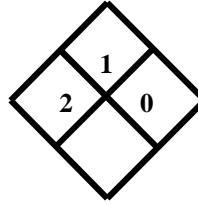
Material Safety Data Sheet

MSDS No: 5623

**1. PRODUCT IDENTIFICATION**

Trade Name: Araldite 2011/A

Chemical Family: Epoxy



NFPA RATING

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

HMIS RATING

**Intended Use or Product Type:**

Epoxy 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				
*	25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane Bisphenol A diglycidyl ether polymer Concentration: 40.00 - 70.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	3101-60-8	Oxirane, [[4-(1,1-dimethylethyl)phenoxy]methyl]- Butylphenyl glycidyl ether Concentration: 1.00 - 5.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	67924-34-9	Phenol, 4-(1,1-dimethylethyl)-, polymer with (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis[phenol] Bisphenol A epoxy resin Concentration: 10.00 - 30.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester Dibutyl phthalate Concentration: 5.00 - 10.00 % by wt	5 mg/m3	NE	5 mg/m3	NE	NE	NR	NR	NR

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.

**Chronic:** Possible reproductive health hazard. Overexposure may cause male reproductive disorders and have effects on developing fetus. This product contains dibutyl phthalate which may cause adverse reproductive effects in laboratory animals. The relevance to humans is not known.

### 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:** 273°F (134 °C)

**Flash Point Method Used:** PMCC

**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.

Effective Date: 7/11/07

## 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. Notice! Possible reproductive health hazard. Overexposure may cause male reproductive disorders and have effects on developing fetus.

**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>	Opaque White
<b>Odor:</b>	Mild
<b>Physical State:</b>	Liquid
<b>Solubility in Water:</b>	Insoluble
<b>Vapor Pressure:</b>	0.0017 mm Hg at 25°C (77 °F)
<b>Specific Gravity:</b>	1.14 - 1.19 (water = 1)
<b>Boiling Point:</b>	> 300°F (> 149 °C)
<b>Melting 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 Determined

**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.

Effective Date: 7/11/07

**Hazardous Polymerization:** Will not occur.**11. TOXICOLOGICAL INFORMATION****Sensitization:** Possible in susceptible individuals.**Carcinogenicity:** Based on several dermal studies in mice, IARC had concluded in 1999 that diglycidyl ether of bisphenol A is not classifiable as a human carcinogen (Group 3) and has limited evidence of carcinogenicity in animals.**Skin Irritation:** Irritant.**Eye Irritation:** Irritant.**Reproduction:** For diglycidyl ether of bisphenol A- There were no treatment-related histologic changes noted nor effects on reproductive performance in rats at any oral dose tested.**Teratogenicity:** For diglycidyl ether of bisphenol A- No adverse effects on embryonic or fetal development was observed in rabbits after dermal exposure.**Mutagenicity:** For diglycidyl ether of bisphenol A- In vitro tests showed mutagenic effects which were not observed with in vivo tests.**Sub-Chronic:** Diglycidyl ether of bisphenol A, applied to the skin of rats five times per week for approximately 13 weeks, caused no apparent systemic toxicity with the exception of decreased body weight and body weight gain.**Additional Information:** This product contains dibutyl phthalate which may cause adverse reproductive effects in laboratory animals. The relevance to humans is not known.**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**

Effective Date: 7/11/07

**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 contains a toxic chemical(s) for routine annual toxic chemical release reporting under section 313 (40 CFR 372). This information must be included in all MSDS's copied or distributed for this material.

Chemical Name: 1,2-Benzenedicarboxylic acid, dibutyl ester

Common Name: Dibutyl phthalate

Percent in Composition: 5 - 10 % by wt

Comment:

**TSCA Section 8(b) - Inventory Status:** All chemical components of this product are in compliance with TSCA inventory requirements.

**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:** This product contains only chemicals that are currently listed on the Canadian Domestic Substance List.

**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: Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane

Common Name: Bisphenol A diglycidyl ether polymer

CAS Number: 25068-38-6

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Phenol, 4-(1,1-dimethylethyl)-, polymer with (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis[phenol]

Common Name: Bisphenol A epoxy resin

CAS Number: 67924-34-9

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: 1,2-Benzenedicarboxylic acid, dibutyl ester

Common Name: Dibutyl phthalate

CAS Number: 84-74-2

Comment: Environmental Hazardous Substance

Effective Date: 7/11/07

Chemical Name: Silica  
Common Name: Fumed Silica  
CAS Number: 7631-86-9  
Comment: Hazardous Substance

**16. OTHER INFORMATION**

**MSDS No:** 5623  
**Approved By:** Dianne Blessing  
**Title:** EH&S Specialist

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