

4917 Dawn Avenue  
East Lansing, MI 48823-5691

8am to 4:30pm Phone: (517) 351-5900  
24-Hour Health/Environmental Emergency Phone: 1-888-354-3323

**Effective Date:** 9/19/00

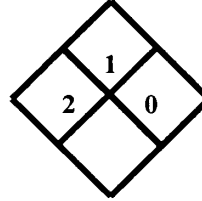
**Material Safety Data Sheet**

**MSDS No:** 30245

**1. PRODUCT IDENTIFICATION**

**Trade Name:** Araldite AY 8536

**Chemical Family:** Epoxy



NFPA RATING

Health	2
Flammability	1
Reactivity	0
Protective Equipment	

HMIS RATING

**Intended Use or Product Type:** Epoxy Adhesive.

**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	NE	NE	NE	NE	NE	NR	NR	NR
	Common Name:									

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:** Test results for Diglycidyl Ether of Bisphenol A: 2-year dermal study in mice: no treatment related effects. 2-year skin painting studies: A) C3HF/BD mice: no increased tumor incidence; B) C57BL/6BD mice: slight increase in epidermal localized carcinomas at high dose; C) C3H mice: no tumors. Mice receiving skin applications of Diglycidyl Ether of Bisphenol A or essentially identical resins for two years have yielded very limited evidence of weak carcinogenicity. The published report on this study concludes that this resin product "is not a systemic carcinogen when applied to the skin of CF-1 mice" and the tumor data "was of no biological importance". Based on all available data, IARC (International Agency for Research on Cancer) has concluded in 1988 that DGEBA is not classified as a carcinogen.

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Effective Date: 9/19/00

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#### 4. FIRST AID MEASURES

**Ingestion:** If conscious, give 2 - 4 glasses of water to drink. Do not induce vomiting. Call a physician.

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

**Inhalation:** Remove to fresh air. Call a physician.

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Call a physician.

**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

<b>Flash Point:</b>	> 200°F (> 93 °C)
<b>Flash Point Method Used:</b>	Estimated
<b>Flammable Limits in Air (Lower - % by volume):</b>	Not established
<b>Flammable Limits in Air (Upper - % by volume):</b>	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.

#### 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.

Effective Date: 9/19/00

**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>Appearance:</b>	Amber Liquid
<b>Color:</b>	Pale Yellow
<b>Physical State:</b>	Liquid
<b>Solubility in Water:</b>	Not Determined
<b>Vapor Pressure:</b>	Not Determined
<b>Specific Gravity:</b>	1.17 g/ml (water = 1)
<b>Boiling Point:</b>	Not Determined
<b>Evaporation Rate:</b>	Not Determined
<b>Vapor Density:</b>	Not Determined
<b>pH:</b>	Not Determined

**Percent Volatile:** Negligible.

## 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.

**Hazardous Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Sensitization:** Possible in susceptible individuals.

**Skin Irritation:** Irritant.

**Eye Irritation:** Irritant.

**Teratogenicity:** Test results for Diglycidyl Ether of Bisphenol A: No adverse effects on embryonic or fetal development were observed (rats, rabbits).

**Mutagenicity:** Test results for Diglycidyl Ether of Bisphenol A: Ames test: both positive and negative results; Hamster bone marrow cytogenetics (in vivo): negative; Mouse spermatocytes cytogenetics (in vivo): negative; Micronucleus test (in vivo): negative; Mouse dominant lethal test: negative; Alkylation of DNA: positive; Human mononucleated WBC (in vivo): negative; Host mediated assay: negative.

Effective Date: 9/19/00

**Chronic Skin Exposure Effects:** Test results for Diglycidyl Ether of Bisphenol A: 2-year dermal study in mice: no treatment related effects. 2-year skin painting studies: A) C3HF/BD mice: no increased tumor incidence; B) C57BL/6BD mice: slight increase in epidermal localized carcinomas at high dose; C) C3H mice: no tumors. Mice receiving skin applications of Diglycidyl Ether of Bisphenol A or essentially identical resins for two years have yielded very limited evidence of weak carcinogenicity. The published report on this study concludes that this resin product "is not a systemic carcinogen when applied to the skin of CF1 mice" and the tumor data "was of no biological importance". Based on all available data, IARC (International Agency for Research on Cancer) has concluded in 1988 that DGEBA is not classified as a carcinogen.

## 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:** Resin compounds, N.O.I.

**Department of Transportation:** Not regulated as a hazardous material by the U.S. Dept. of Transportation (DOT) 49 CFR 172.101 hazardous materials table.

## 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:** Chemical components listed on TSCA Inventory.

**TSCA Section 12(b) - Export Notification:** This product contains the following chemical(s) that are subject to a Section 12(b) export notification:

Chemical Name: Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-  
Common Name: Diglycidyl Ether of Bisphenol A  
CAS Number: 1675-54-3

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**Effective Date: 9/19/00**

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**State Regulations:**

**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

**16. OTHER INFORMATION**

**MSDS No:** 30245  
**Approved By:** Kenneth L. Payne  
**Title:** E,H&S Manager

**Disclaimer:** The following supercedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled or lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.