

MATERIAL SAFETY DATA SHEET



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Araldite® GY 250

Revision: 00

1. Product Identification

Trade Name : **Araldite® GY 250**
Chemical Family : Epoxide
Product Type : Liquid Resin

2. Composition / Information On Ingredients

Reaction Product : Bisphenol-A (Epichlorohydrin) Epoxy Resin
C.A.S Number : 25068-38-6
Common Name : Bisphenol –A Epoxy resin
Exposure Limits : OSHA PEL : Not Established
ACGIH TLV: Not Established
Carcinogenicity : This chemical is not considered to be Carcinogenic by NTP, IARC or OSHA.

3. Hazards Identification

Irritating to eyes & skin.

May cause sensitization by skin contact.

Toxic to aquatic organism, may cause long-term effects in the aquatic environment.

Emergency Overview: Warning! Causes allergic skin reactions. May cause irritation.

4. First Aid Measures

Ingestion : If swallowed, give at least 3-4 glass of water but do not induce vomiting. If vomiting occurs, give water again. Do not give anything by mouth to an unconscious or convulsing person. Get Medical attention. Have physician determine whether vomiting or stomach evacuation is necessary.

Skin : For skin contact, wash with large amounts of running water,(and soap), if available, for 15 minutes. Remove contaminated clothing and shoes. Get immediate medical attention. Discard or decontaminate clothing before re-use and destroy contaminated shoes.

Inhalation	:	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
Eyes	:	For eyes contact, immediately flush eyes for 15 minutes with running water. Hold eyelids apart to ensure rinsing of the entire surface and lids with water. Get immediate medical attention.
Over exposure Effect	:	Irritation, sensitization and dermatitis.
Additional Information	:	Promptly remove wet contaminated non-impervious clothing. Wash before reuse. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire fighting Measures

Flash point	:	254°C (490°F) closed cup
Fire Fighting Extinguishing Media	:	Carbon dioxide, Foam, Dry Chemical & water spray.
Fire fighting Procedure	:	Use self –contained breathing apparatus & protective suit.
Hazardous Combustion Products	:	Decomposition and combustion product may be toxic. Under conditions of incomplete combustion or pyrolysis, Phenolics and carbon dioxides may be evolved. The thermal decomposition products therefore should be treated as potentially hazardous substances and appropriate precautions should be taken.
Fire & Explosion Hazards	:	Non-flammable product.

6. Accidental Release Measures

Personal Precaution	:	Avoid all personal contact. Wear adequate personal protective equipment.
Environmental Precautions	:	Contain liquid to prevent contamination of soil, surface water or ground water. Flushings and wash waters must be contained and prevented from entering into soil, water ways and ground water. Large spills: Contain with dike.
Methods of Cleaning up	:	Cover and soak up with a suitable absorbent material, such as Sand. Shovel and collect in suitable and properly labeled containers. Dispose of according to applicable regulations. Disposal consideration: Residual can be removed with solvent. Solvents are not recommended for cleanup unless the recommended exposure guidelines and safe handling practices for the specific solvent are followed. Residual product may be removed using steam or hot soapy water.

7. Handling and Storage

Precautions	:	Avoid contact with eyes, skin and clothing. Avoid breathing vapor, mist or spray. Use only with good ventilation. Promptly remove wet contaminated non-impervious clothing and wash before reuse. Destroy contaminated leather and absorbent shoes. Individuals should wash thoroughly after handling.
Storage information	:	Store in cool, dry area in sealed containers. Keep containers closed to prevent moisture absorption and contamination.

8. Exposure Controls / Personal Protection

Personal Protective Equipment	:	Wear appropriate equipment to prevent eye or skin contact.
Skin protection	:	Use of barrier cream recommended.
Respiratory Protection	:	Wear impervious gloves.
Eye protection	:	Organic chemical cartridge respirator, if needed.
Engineering Controls	:	Wear splash-proof chemical goggles.
	:	Good general mechanical ventilation and local exhaust.

9. Physical & Chemical properties

Color	:	Clear
Odor	:	Slight
Physical state	:	Liquid
Solubility in water	:	Insoluble
Vapor pressure	:	~ 1 mm Hg at 180° C (356 ° F)
Specific Gravity	:	1.15-1.17 at 20° C (68°F)
Boiling Point	:	>200 ° C (>392 ° F)
Decomposition temperature	:	> 200°C (> 392°F)
Percent Volatile	:	Nil

10. Stability and Reactivity

Condition to Avoid	:	Avoid strong acids or bases in bulk and elevated temperatures.
Stability	:	Stable.
Incompatibility	:	Strong oxidizing agents.
Hazardous Decomposition Products	:	Carbon monoxide, Carbon dioxide, Aldehydes.
Hazardous Polymerization	:	Will not occur.

11. Toxicological Information

Acute Oral effect (LD50)	:	(Rat) > 5,000 mg / kg.
Acute Dermal Toxicity (LD50)	:	(Rabbit) > 6,000 mg/kg.
Sensitization	:	Moderate sensitizer.
Skin Irritation	:	(Rabbit) Moderate irritation.
Eye Irritation	:	(Rabbit) Slight irritation.
Teratogenicity	:	(Rat, Rabbit) No adverse effects on embryonic or fatal Developments were observed.
Mutagenicity	:	Ames Test: Both positive and negative results. Hamster Bone Marrow Cytogenetic (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 vitro): Negative. Host mediated Assay: Negative
Sub-Chronic	:	(Rat) No observable effect at highest level studied (1000 mg/kg/day for 28 days) in oral feeding study.
Chronic Skin Exposure effects	:	2-Year Dermal study in mice: No treatment related effects. 2-Year Skin painting Studies: a) C3HF /BD Mice: No increased tumor incidence. b) C75BL/6BDMice: Slight increase in epidermal Localized carcinomas at high dose. c) C3H Mice: No tumor

Mice receiving skin applications of the Diglycidyl Ether of Bisphenol A or essentially identical resins for two years have yielded very limited evidence of weak carcinogenicity. The published report on his 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.

12. Ecological Information

Biodegradability	:	(Modified Sturm method): ~ 12%
Fish Toxicity	:	Rainbow Trout (96 hr.): LC50 1.5 mg/l. Zebra Fish (96 hr.): LC50 2.4 mg/l.
Invertebrate Toxicity	:	Daphnia Toxicity (24 hr.): EC50 3.6 mg/l.

13. Disposal Considerations

Waste Disposal Method : Disposal in accordance with federal, state and local Regulation.

14. Transport Information

Department of Transportation : Not regulated.

15. Regulatory information

US Federal Regulation:

Occupational Safety and Health Act (OSHA): This Material safety data Sheet (MSDS) has been prepared in compliance with 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 304 – CERCLA: Not listed

SARA Title III: Section 313 Toxic Chemical List (TCL): This product does not contain a toxic chemical for routine annual ‘Toxic Chemical release reporting’ under section 313(40 CFR 372)

TSCA Section 8 (b) – Inventory Status: Chemical component listed on TSCA Inventory.

TSCA Section 12(b) – Export Notification: This product does not contain any chemical(s) that are subject to a section 12(b).

International Regulations:

Canadian Inventory Status: All components included on the Domestic Substance List (DSL).

16. Other Information

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 constructed 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 result 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.

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