

EMS CATALOG NO: 10900  
EMS PRODUCT: Araldite 502  
DATE: 09/01/2008  
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MATERIAL SAFETY DATA SHEET

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.

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FOR PRODUCT AND SALES INFORMATION

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CONTACT ELECTRON MICROSCOPY SCIENCES OFFICE ABOVE.

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PRODUCT IDENTIFICATION

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PRODUCT NAME: Araldite GY 502  
FAMILY/CHEMICAL NAME: Modified Bisphenol A Epoxy  
PRODUCT TYPE: Epoxy Resin

HAZARD STATEMENT:

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.

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HAZARDOUS INGREDIENTS

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SPECIFIC CHEMICAL NAME: Phenol, 4,4'-(1-Methylethylidene)Bis-,  
Polymer with (Chloromethyl)Oxirane.  
CAS NUMBER: 25068-38-6  
COMMON NAME: Bisphenol A Diglycidyl Ether

EXPOSURE LIMITS: OSHA PEL: Not established  
ACGIH TLV: Not established

CARCINOGENICITY: This chemical is not considered to be  
carcinogenic by IARC.

SPECIFIC CHEMICAL NAME: 1,2-Benzenedicarboxylic Acid, Dibutyl Ester  
CAS NUMBER: 84-74-2  
COMMON NAME: Dibutyl Phthalate

EXPOSURE LIMITS: OSHA PEL: 5 mg/CU.M. TWA  
ACGIH TLV: 5 mg/CU.M. TWA

CARCINOGENICITY: This chemical is not considered to be  
carcinogenic by NTP, IARC, or OSHA.

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PHYSICAL DATA

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APPEARANCE AND ODOR: Light colored liquid, Slight aromatic  
odor.  
BOILING POINT: > 200°C  
SOLUBILITY IN WATER: Insoluble.  
SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 1.13

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FIRE AND EXPLOSION HAZARD DATA

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FLASH POINT: 400°F (Closed cup)  
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical, water  
spray.  
FIRE FIGHTING  
PROCEDURES/SPECIAL: Use self-contained breathing apparatus.  
UNUSUAL FIRE AND  
EXPLOSION HAZARDS: Decomposition and combustion products may be  
toxic.

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REACTIVITY DATA

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STABILITY: Stable.

CONDITIONS TO AVOID: Elevated temperatures.

INCOMPATIBILITY: Strong oxidizing agents and nitrates.

HAZARDOUS  
DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, aldehydes.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Strong acids or bases in bulk.

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HEALTH HAZARD DATA

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PRIMARY ROUTES OF EXPOSURE: Dermal, Inhalation.

ORAL LD50: (Rats) > 5 - g/kg (component).  
DERMAL LD50: (Rabbits) > 4 - 6 g/kg (component).

SKIN IRRITATION: (Rabbits) Non-irritating.  
EYE IRRITATION: (Rabbits) Irritant.

SENSITIZATION: Moderate sensitizer.

OTHER DATA: Respiratory irritant.

OVEREXPOSURE EFFECTS:

Overexposure to this material can cause eye and respiratory irritation and allergic skin reactions. In animal studies, a component in this product has affected the testes, female reproductive capacity and the developing fetus. May also cause nausea, vertigo, photophobia and blood and protein in the urine from ingesting a large single dose.

MEDICAL CONDITION AGGRAVATED BY EXPOSURE:

Allergy, eczema or skin conditions.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Immediately flush eyes with water for at least 15 minutes. with running water. Hold eyelids apart to ensure rinsing of the entire eye surface and lids with water. Get immediate medical attention.

SKIN: For skin contact, wipe away excess material with dry towel. Then wash affected areas with plenty of water, and soap if available, for several minutes. Get immediate attention if irritation occurs.

INGESTION: If swallowed, give at least 3-4 glasses of water but do not induct vomiting. Do not give anything by mouth to

an unconscious or convulsing person.

**INHALATION:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get immediate medical attention. If breathing is difficult, transport to medical care and, if available, give supplemental oxygen.

**OTHER:** Promptly remove wet contaminated non-impervious clothing. Wash before reuse.

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**SPILL OR LEAK PROCEDURES**

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**SPILL PROCEDURES:**

Absorb onto sand or other absorbent material. Shovel into closable container for disposal. Wear protective equipment specified below. Flush contaminated area with water.

**WASTE DISPOSAL METHODS:**

Dispose in accordance with Federal, State and Local regulations.

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**SPECIAL PROTECTION INFORMATION**

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**VENTILATION:** Good general mechanical ventilation recommended.

**PROTECTIVE GLOVES:** Wear impervious gloves.

**EYE PROTECTION:** Wear splash-proof chemical goggles or complete face shield.

**RESPIRATORY PROTECTION:** Organic chemical cartridge respirator, if needed.

**OTHER PROTECTIVE EQUIPMENT:** Wear appropriate equipment to prevent eye or skin contact. Use of barrier cream recommended.

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**SPECIAL PRECAUTIONS**

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**HMIS CODE:** Health : 2\* Fire : 1 Reactivity : 0

**HANDLING, SHIPPING, STORAGE PRECAUTIONS:**

**WARNING!** May cause skin sensitization and irritation. May have effect on reproduction and the developing fetus.

Avoid contact with eyes, skin and clothing. Avoid breathing vapor, mist or spray. Use only with adequate ventilation. Wash after handling. Store in dry area in closed containers. FOR INDUSTRIAL USE ONLY.

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REGULATORY INFORMATION

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TRANSPORTATION: FOR BULK OR MARINE SHIPMENTS:

PROPER SHIPPING NAME: ENVIRONMENTALLY HAZARD SUBSTANCE,  
LIQUID, N.O.S. (DIBUTYL PHTHALATE)

HAZARD CLASS:

DOT/IATA/ICAO: 9  
IMDG/IMO: 9  
ID NUMBER: UN 3082  
PACKING GROUP: III, MARINE POLLUTANT

FOR NONBULK SHIPMENTS IN CONTAINERS GREATER THAN OR EQUAL TO 62.5 LBS, NOT TRANSPORTED BY VESSEL:

PROPER SHIPPING NAME: ENVIRONMENTALLY HAZARD SUBSTANCE,  
LIQUID, N.O.S. (DIBUTYL PHTHALATE)

HAZARD CLASS:

DOT/IATA/ICAO: 9  
IMDG/IMO: 9  
ID NUMBER: UN 3082  
PACKING GROUP: III

RCRA STATUS: Not a hazardous waste under RCRA (40 CFR 261).

CERCLA STATUS: RQ 62.5 LBS (U069)

SARA/TITLE III - TOXIC CHEMICALS LIST:

This product is (or contains) a toxic chemical for routine annual 'Toxic Chemical Release Reporting ' under Sec. 313 (40 CFR 372).  
16.0000%; 84-74-2; Dibutyl Phthalate

TSCA INVENTORY STATUS:

Chemical components listed on TSCA Inventory.

TSCA EXPORT NOTIFICATION:

This product contains chemical(s) which is (are) regulated by TSCA 12(B) regulation and it is required that proper export notification shall be sent to EPA prior to shipping out of the United States of America.

CHEMICAL NAME: 1,2-Benzenedicarboxylic Acid, Dibutyl Ester

CAS NUMBER: 000084-74-2

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CHEMICAL NAME: Bisphenol A Diglycidyl Ether

CAS NUMBER: 001675-54-3

CALIFORNIA PROPOSITION 65:

WARNING! This product contains a chemical which is known to the state of California to Cancer. EPICHLOROHYDRIN TRACE

CANADIAN INVENTORY STATUS:

All components included on the Domestic Substances List (DSL).

NEW JERSEY RIGHT-TO-KNOW LABELLING INFORMATION:

This product contains the following:

CHEMICAL NAME: Phenol, 4,4'-(1-Methylethylidene)  
Polymer with (Chloromethyl)oxirane  
CAS NUMBER: 25068-38-6

CHEMICAL NAME: Di-n-butyl phthalate  
CAS NUMBER: 84-74-2

PENNSYLVANIA RIGHT-TO-KNOW ACT:

The following is required composition information:

CHEMICAL NAME: Phenol, 4, 4'-(1-Methylethylidene) Bis-,  
Polymer with (Chloromethyl) Oxirane.  
CAS NUMBER: 25068-38-6  
COMMON NAME: Bisphenol A Epoxy Resin.  
COMMENTS: Not on Pennsylvania Hazardous Substance List.

CHEMICAL NAME: 1, 2-Benzenedicarboxylic Acid, Dibutyl Ester.  
CAS NUMBER: 84-74-2  
COMMENTS: Environmental hazard.