



MATERIAL SAFETY DATA SHEET

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3/28/05

1- COMMERCIAL NAME : AC 2320-1 RESIN

2- COMPOSITION/INFORMATION ON INGREDIENTS :

CHEMICAL NAME	CAS NUMBER	QUANTITY in %
1. Bisphenol A Epoxy Resin	25068-38-6	25-35
2. Aluminum Powder	7429-90-5	55-65
3. 1,4-Butanedioldiglycidyl Ether	2425-79-8	1-5
4. N/A	N/A	N/A

3- HAZARDS IDENTIFICATION :

- Irritating to eyes and skin.
- May cause sensitization by skin contact.

4- FIRST AID MEASURES :

- Change any soiled clothing immediately.
- **In case of eye contact :** open eyelids as far as possible and flush with large quantities of water for at least fifteen minutes. Call a physician, preferably an eye specialist.
- **In case of skin contact :** physically remove the product and wash skin thoroughly with soap and water. Consult a physician if skin irritation occurs.
- **In case of swallowing :** do not attempt to make him/her vomit. Dilute with water. Call a physician and (or) hospitalize the patient immediately.
- **In case of inhalation :** remove the patient from the contaminated area. Call a physician if after effects occur.

5- FIRE-FIGHTING MEASURES :

5-1 Fire-extinguisher types :

- Use : chemical foam, CO₂, powder. Where the fire is of major proportions, water spray may also be used.
- Do not use : N/A

5-2 Specific fire and explosion risks :

Incomplete combustion or pyrolysis mainly produces oxides of carbon and water.

5-3 specific protective measures during firefighting :

Firefighting personnel should be equipped with insulated, autonomous respiratory protection equipment.

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9- PHYSICAL AND CHEMICAL PROPERTIES :

Physical state : Thick Liquid

Color : Gray

Odor : No noticeable

pH : not established

Flash point : > 200°F / 93°C

Specific gravity : 1.76

Solubility : - in water : at 68°F / 20°C : low

- in solvents : YES (soluble in many organic solvents : benzene hydrocarbons and chlorinated hydrocarbons, acetone, phthalates, ...)

10- STABILITY AND REACTIVITY

10-1 Dangerous decomposition by-products :

- These are non-existent if storage and handling rules are followed. Can produce carbon monoxide, carbon dioxide, and aldehydes. (please see also § 5-2).

- Excessive heating over long periods causes resin degradation.

10-2 Hazardous reactions with :

- Strong acids or bases in bulk.

11- TOXICOLOGICAL INFORMATION :

Effects on eyes : may cause slight temporary irritation.

Effects on skin : repeated or prolonged single exposure may cause irritation to the skin. May cause a cutaneous allergic reaction in predisposed individuals. It appears unlikely that any danger is attached to absorption of quantities of the product through the skin following prolonged single exposure.

Effects of inhalation : heating can generate vapors that could cause headache, nausea, dizziness and respiratory irritation.

Effects on ingestion : low toxicity for a single oral dose.

12- ECOLOGICAL INFORMATION :

Based on data for one or more similar products :

- **Ecotoxicity :** the product is probably moderately toxic to fish. Toxicity for aquatic invertebrates in static acute conditions is probably high.

- **Biodegradability :** non-biodegradable.

Given that this product is non-biodegradable and is moderately toxic to fish, it can be considered to be a potential pollutant.

13- DISPOSAL CONSIDERATIONS

Dispose of the product by burning in a suitable incinerator or bury in an approved landfill following all applicable local and/or national regulations.

Empty containers may not be disposed of unless any remaining material adhering to the internal walls has been removed.

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6- ACCIDENTAL RELEASE MEASURES :

6-1 Individual protection :

Wearing of suitable protective clothing and protective equipment for face/eyes.

6-2 Environmental protection : Please see § 12

6-3 Decontamination procedures :

- Contain spilt material in order to avoid its transfer to sewers or rivers and streams.
- Physically remove the material.
- Cover material with sand, earth or any other similar absorbent material in order to soak product up. The resulting mix may then be shoveled into cans and removed for disposal (Please see § 13).

7- HANDLING AND STORAGE :

7-1 Handling :

- Inform personnel of risks associated with the product, the precautions to be taken and procedures to follow where an accident occurs.
- Observe personal hygiene rules to avoid contact with eyes and skin.
- Avoid inhaling vapors produced by the material when heated.
- General ventilation in the area should be sufficient (fan-driven). Where vapors could possibly escape into the air in the workplace, local specific means of ventilation will be necessary.
- Install showers and eye baths ("fountain" type).
- Wash hands thoroughly at beginning of every work break and at the end of the working day.
- Work stations and the general working area must be kept perfectly clean.
- Avoid exposing people who have suffered from eczema or are still suffering from any skin condition, wound, cut or irritation to this material.

7-2 Storage :

- Keep the material hermetically sealed in its original packaging, protected from humidity and at a temperature between 59 and 77°F / 15 and 25°C in a well-ventilated storage facility.
- Ensure that the floor of the storage area is impermeable and concave in profile in order to provide effective containment.
- Reproduce labelling on all new packs where original packaging is divided.

8- EXPOSURE CONTROLS/PERSONAL PROTECTION :

8-1 Exposure controls :

Maintain air contaminant concentrations in the workplace at the lowest possible levels.

8-2 Personal protection :

- respiratory protection : NO, when vapors are below PEL recommendations (see Sec. 15).
If product is heated, respiratory protection is recommended.
- gloves : YES (rubber)
- eye protection : YES

Do not mix work clothing and normal clothing. Wash hands thoroughly at beginning of every work break and at the end of the working day.

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14- TRANSPORT INFORMATION :

Not covered by official regulations.

15- REGULATORY INFORMATION :

US Federal Regulation

Toxic Substances Control Act (TSCA):

All components are included in the EPA Toxic Substances Control Act Chemical Substance Inventory.

OSHA Hazard Communication Standard hazard classes:

Irritant

Permissible Exposure Limits : Aluminum Powder (7429-90-5)

OSHA : TWA 15 mg/m³ (total dust)

ACGIH : TLV 10 mg/m³ (total dust)

EPA SARA Title III Section 312 hazard class :

Delayed Health Hazard.

Symbol : Irritant.

Please refer to any other national measures or regulations that may be relevant to the product.

EPA SARA Title III Section 313 chemicals: Aluminum Powder (CAS 7429-90-5) 55-65%

16- OTHER INFORMATION :

HMIS Ratings:	<u>Resin</u>
- Health:	2
- Flammability:	1
- Reactivity:	0

Ratings Key: 4 = Highest hazard, 0 = Lowest hazard, * = Chronic Health Hazard

REVEALING MODIFICATION : E4

Revised : 3/28/05 Supersedes sheet : 6/29/98 This sheet provides a complement to the product use instructions but does not replace them. The information it contains is based on our current knowledge of the product concerned at the date of drafting. That information is given in good faith and does not in any circumstances remove from the user his duty to be aware of and to follow all legal regulations and statutes covering his activities. The user takes sole responsibility for application of safety measures covering the use of the product he is aware of. We also draw the user's attention to the risks attached to any use of the product for applications for which it was not designed.

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