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Date of Preparation: July 7, 2000

IMPORTANT
PLEASE READ

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

Product Name: Aqua Clear Component B (Epon Resin)
Chemical Name: Modified Bisphenol A - Epichlorohydrin Based Epoxy resin
Chemical Family: Epoxy Resin

NO.	COMPOSITION	CAS NO.	PERCENT
P	Epon Resin 8132	Mixture	100
1	Bisphenol- A/Epichlorohydrin Resin	25068-38-6	80
2	Alkyl (C12-C13) Glycidyl Ether	120547-525-6	20

Component 1 is an epoxy resin produced by the condensation reaction of Epichlorohydrin and Bisphenol- A. These raw materials are consumed in the process. Residual levels of Epichlorohydrin are typically 2-3 ppm in the product.

SECTION II -ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
P	Not Available		
1	11.4 G/KG (rat)	>20 ML/KG (rabbit)	No data available
1	15.6 G/KG (mouse)		
2	10.0 G/KG (rat)	2.0 G/KG (rat)	No data available

SECTION III - HEALTH INFORMATION

The health effects noted below are consistent with requirements under the OSHA Communication Standard (29 CFR 1910/1200)

EYE CONTACT:
Based on presence of component 2, product may be moderately irritating to the eyes.

SKIN CONTACT:
Based on presence of components 1 and 2, product may moderately irritating to the skin. May cause skin sensitization. Based of the presence of component 2, prolonged or repeated liquid contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis.

INHALATION:
Based on the presence of component 2, product may cause irritation to the nose, throat and respiratory.

INGESTION:
Based on the presence of component 2, product is moderately toxic and may be harmful if swallowed.

SIGNS AND SYMPTOMS:
Irritation as noted above. Skin sensitization (allergy) may be evidenced by rashes, especially hives.

AGGRAVATED MEDICAL CONDITIONS:
Pre-existing eye, skin and respiratory disorders may be aggravated by exposure to this product. Pre-existing skin or lung allergies may increase the chance of developing increased allergy symptoms from exposure to this product.

OTHER HEALTH EFFECTS
See section IV for supplemental health information.

SECTION IV - OCCUPATIONAL EXPOSURE LIMITS

	OSHA		ACGIH		OTHER
NO.	PEL/TWA	PEL/CEILING	TLV/TWA	TLV/STEL	
P	None Established				
1	None Established				
2	None Established				

SECTION V - EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT:
Flush eyes with plenty of water for 15 minuted while holding eyelids open. Get medical attention.

SKIN CONTACT
Remove contaminated clothing/shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. If irritation occurs get medical attention. Do not reuse clothing until cleaned. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent re-use.

INHALATION:
Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

INGESTION:
Do not give fluids if victim is unconscious or very drowsy. Otherwise give no more than 2 glasses of water and induce vomiting by giving 30 CC (2 tablespoons) syrup of Ipecac. If Ipecac is unavailable, give 2 glasses of water and induce vomiting by touching finger to back of victims throat. Keep victims head below hips while vomiting. Get medical attention.

**NOTE TO PHYSICIAN
If victim is a child, give no more than 1 glass of water and 15 CC (1 tablespoon) syrup of Ipecac. If symptoms such as loss of gag reflex, convulsion, or unconsciousness occurs before emisis, gastric lavage should be considered following intubation with cuffed endotracheal tube.

SECTION VI - SUPPLEMENTAL HEALTH INFORMATION

Chronic studies: Recent 2 year bioessays in mice exposed by dermal route to Epon Resin 828, a resin similar to component 1, the diglycidyl ether of bisphenol a (DGEBPA) or to other commercial resins which are composed predominantly of DGEBPA have yielded very limited evidence of weak carcinogenicity. DGEBPA is a component of this resin. The authors of this work concluded that the renal tumor evidence with Epon Resin 828 "was of no biological significance" and that the resin "is not systemic carcinogen When applied to the dorsal skin of CF 1 mice." Based upon this and all other available information, the international agency for research on cancer (IARC) concluded (1988) that DGEBPA was not classifiable as a carcinogen (IARC Group 3) based on the following: Human evidence - Inadequate; Animal Evidence - Inadequate.

Mutagenicity: Both Epon Resin 828, a resin similar to component 1 and DGEBPA, a component of the product, have proved to be inactive when tested by in vivo mutagenicity assays. They have both shown activity by in vitro microbial mutagenicity screening and both produced

chromosomal aberrations in cultured rat liver cells. The significance of this information to man is unknown.

Note: This product contain trace (2-3 PPM, typical) residual quantities of Epichlorohydrin (ECH), CAS no. 106-89-8. It is very unlikely that normal work practices with this product could result in measurable ECH concentrations in the workplace atmosphere. Nevertheless, you should be aware that ECH has been reported to produce cancer in laboratory animals and to produce mutagenic changes in bacteria and cultured human cells. It has been classified by the International Agency for Research on Cancer (IARC) as a probable human carcinogen (IARC Group 2A) based on the following conclusions: Human evidence - Inadequate; Animal Evidence - Sufficient. It has been classified as an anticipated human carcinogen by the National Toxicology Program (NTP).

SECTION VII - PHYSICAL DATA

Boiling Point (Deg F):	Not Available
Melting Point (Deg F):	Not Available
Evaporation Rate (N-Butyl Acetate =1):	Not Available
Specific Gravity (H2O=1):	1:1
Solubility (in water):	Slight
Vapor Pressure (MM HG):	<1
Vapor Density (Air=1):	>1
Appearance and Odor:	Light Yellow Liquid

SECTION VIII - FIRE AND EXPLOSION HAZARDS

Flash point and method:	>200 Deg F (Setaflash)
Flammable Limits/% Volume in air:	Lower: N/AV Upper: N/AV

Extinguishing Media:
Use water fog, "Alcohol" Foam, Dry Chemical or CO2

Special Fire Fighting Procedures and Precautions:
Material will not burn unless pre-heated. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots). Including a positive pressure NOISH approved self-contained breathing apparatus. Cool fire exposed containers with water.

Unusual Fire and explosion hazards:
No unusual hazards.

SECTION IX - REACTIVITY

Stability: Stable
Hazardous Polymerization: Will not occur

Conditions and Materials to Avoid:
Avoid Heat, Flame and contact with strong oxidizing agents. Can react vigorously with strong Lewis or mineral acids and strong mineral and organic bases/ especially primary and secondary aliphatic amines. Reaction with some curing agents may produce considerable heat.

Hazardous Decomposition Products:
Carbon Monoxide, Aldehydes and acids may be formed during combustion.

SECTION X - EMPLOYEE PROTECTION

Respiratory Protection:
Avoid breathing vapor or mists. If exposure may or does exceed occupational exposure limits (Section IV) use a NOISH approved respirator to prevent overexposure. In accordance with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

Protective Clothing:
Avoid contact with eyes. Wear chemical goggles if there is a likelihood of contact with the eyes. Avoid prolonged or repeated contact with the skin. Wear chemical resistant gloves and other clothing as required to minimize contact.

Additional Protective Measures:
Use ventilation as required to control vapor concentrations. Eye wash fountains ans safety showers should be available for emergency use.

SECTION XI - ENVIRONMENTAL PROTECTION

Spill or Leak Procedures:
May burn although not readily ignitable. Use cautious judgement when cleaning up large spills.

Large Spills:
Wear a respirator and protective clothing as appropriate. Shut off source of leak, if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with absorbent such as clay, sand or other suitable material. Dispose of properly. Flush area with water to remove trace residue.

Small Spills:
Soak up with an absorbent material and dispose of properly.

SECTION XII - SPECIAL PRECAUTIONS

Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures. Handle in accordance with the potential hazard of the curing agent used.

WARNING: Potential sensitizer. Containers, even those that have been emptied, can contain hazardous product residues. Minimize all contact with material. Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing before reuse.

Heating this resin above 300□F in presence of air may cause slow oxidative decomposition. Above 500□F polymerization may occur. Some curing agents (e.g.; aliphatic polyamines) can produce exothermic reactions which in large masses can cause runaway polymerization and charring of reactants. Fumes and vapors from these thermal and chemical decompositions vary widely in composition and toxicity. DO not breathe fumes.

Use a NOISH approved respirator to prevent overexposure. In accordance with 20 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors. If this resin is handled, shipped, or stored in bulk, the recommended pumping temperature is 180□F maximum. To prevent thermal burning, avoid skin and eye contact with hot liquid.

SECTION XIII - TRANSPORTATION REQUIREMENTS

Department of Transportation Control Classification:
Not hazardous by DOT regulations

DOT proper shipping name:
Not regulated

Other requirements:
None

SECTION XIV - OTHER REGULATORY CONTROLS

The components of this product are listed on the EPA/TSCA inventory of chemical substances.

Protection of stratospheric ozone (pursuant to section 611 of the Clean Air Act Amendments of 1990): per 40 CFR Part 82. This product does not contain nor was it directly manufactured with any Class I or Class II ozone depleting substances.

In accordance with SARA title III, section 313, the Environmental Data Sheet (EDS) should always be copied and sent with the MSDS.

SECTION XV - STATE REGULATORY INFORMATION

The following chemicals are specifically listed by the individual States; other product specific health and safety data in other sections of the MSDS may also be applicable for the State requirements. For details on your regulatory requirements you should contact the appropriate agency on your State.

State Listed Component	Percent	State Code
Epichlorohydrin (CAS No. 106-89-8)	2 PPM	MA, CA65C/R

CA = California Haz. Subst. List; CA65C, CA65C/R = California Safe Drinking Water and Toxics Enforcement Act of 1986 or Proposition 65 List; CT = Connecticut Toxic Subst. List; FL = Florida Subst. List; IL Illinois Tox. Subst. List; LA Louisiana Haz. Subst. List; MA = Massachusetts Subst. List; ME = Maine Haz. Subst. List; MN = Minnesota Haz. Subst. List; NJ = New Jersey Haz. Subst. List; PA = Pennsylvania Haz. Subst. List; RI = Rhode Island Haz. Subst. List.

California Proposition 65 Footnote: CA65C = The chemical identified with this code is known to the State of California to cause cancer. CA65R = The = The chemical identified with this code is known to the State of California to cause birth defects or other reproductive harm. CA65C/R = The chemical identified with this code is known to the State of California to cause both cancer and birth defects or other reproductive harm.

SECTION XVI - SPECIAL NOTES

See environmental data sheet for waste disposal and other environmental information. This MSDS revision has changes in Section(s) II, XV and EDS.

The information contained herein is based on the date available to us and is believed to be correct. However Master Pack makes no warranty, expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Master Pack assumes no responsibility for injury from the use of this product described herein.

ENVIRONMENTAL DATA SHEET

EDS Number -- 1064-4

Product -- Epon® Resin 8132

Product Code -- 43533

SECTION I - PRODUCT/COMPOSITION

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SECTION II - SARA TITLE III INFORMATION

No.	EHS RQ (lbs) (*1)	EHS TPR (lbs) (*2)	SEC 313 (*3)	313 Category (*4)	311/312 Categories (*5)

Footnotes:
*1 = Reportable quantity of extremely hazardous substance, Sec. 302
*2 = Threshold planning quantity, extremely hazardous substance Sec. 302
*3 = Toxic chemical, Sec. 313
*4 = Category as required by Sec. 313 (40 CFR 372.65 C), must be used on toxic release inventory form.
*5 = Hazard category for SARA Sec. 311/312 reporting
Health:
H-1 = Immediate (acute) health hazard H-2 = Delayed (chronic) health hazard
Physical:
P-3 = Fire hazard P-4 = Sudden release of pressure hazard
P-5 = Reactive hazard

SECTION III - ENVIRONMENTAL PRESS INFORMATION

Keep out of surface waters, sewers, and waterways entering or leading to surface waters. Notify authorities if any exposure to the general public or environment is likely to occur.

SECTION IV - RCRA INFORMATION

Place in an appropriate disposal facility in compliance with local regulations.

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