

43240



Shell

# MATERIAL SAFETY DATA SHEET

MSDS Number: 23 - 14

24 Hour Emergency Assistance: CHEMTREC - Domestic: (800) 424-9300  
24 Hour Emergency Assistance: CHEMTREC - International: (703) 527-3887  
General Assistance Number: (713) 241-4819

43240

## SECTION 1 PRODUCT IDENTIFICATION

MATERIAL IDENTITY: **EPON® Resin 828**

COMPANY ADDRESS: Shell Chemical Company, P.O. Box 2463, Houston, TX. 77342-2463

## SECTION 2 PRODUCT/INGREDIENTS

INGREDIENTS	CAS#	CONCENTRATION
Bisphenol A/Epichlorohydrin Based Epoxy Resin	25068-38-6	100 %weight

## SECTION 3 HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**Appearance & Odor:** Clear viscous liquid.

**Health Hazards:** Does not present an immediate health hazard during emergency incidents. Contact with hot material can cause thermal burns. May cause allergic skin reaction.

### Inhalation:

This material does not normally present an inhalation hazard, however, in applications where vapors (caused by high temperature) or mists (caused by mixing) are created, **breathing may cause a mild burning sensation** in the nose, throat and lungs.

### Eye Contact:

May cause temporary discomfort or irritation to the eye. Contact with hot material can cause thermal burns which may result in permanent damage or blindness.

### Skin Contact:

May be slightly irritating to the skin. Repeated skin contact may result in an allergic skin reaction causing itching, burning, redness and swelling. Contact with hot material can cause thermal burns which may result in permanent damage.

### Ingestion:

Not expected to be a relevant route of exposure.

## SECTION 4 FIRST AID MEASURES

### Inhalation:

Move to fresh air.

**Skin:**

If contact with hot material, cool the burn area by flushing with large amounts of water. Wipe off excess material from exposed area. Flush exposed area with water and follow by washing with soap if available. DO NOT attempt to remove anything from the burn area or apply burn creams or ointments. Cover the burn area loosely with a sterile dressing, if available. Transport to nearest medical facility for additional treatment.

**Eye:**

Cool the exposed area by flushing with large amounts of water. Flush eyes with water while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision or swelling persist, consult a physician. Transport to nearest medical facility for additional treatment.

**Ingestion:**

DO NOT induce vomiting. Have exposed person rinse mouth out with water, then drink sips of water to remove taste from mouth. In general no treatment is necessary unless large quantities are swallowed, however, get medical advice. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

**SECTION 5****FIRE FIGHTING MEASURES**

**Flash Point [Method]:** 480 °F/248.89 °C [ Pensky-Martens Closed Cup]

**Extinguishing Media:**

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Fire Fighting Instructions:**

Material will not burn unless preheated. Clear fire area of all non-emergency personnel. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus. Cool surrounding equipment, fire-exposed containers and structures with water. Container areas exposed to direct flame contact should be cooled with large quantities of water (500 gallons water per minute flame impingement exposure) to prevent weakening of container structure.

**SECTION 6****ACCIDENTAL RELEASE MEASURES**

May burn although not readily ignitable.

**Protective Measures:**

Wear appropriate personal protective equipment when responding to spills. Refer to Section 8.

**Spill Management:**

Use cautious judgment when cleaning up large spills. Shut off source of leak if safe to do so. Dike and contain spill. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly. Flush area with water to remove trace residue. Contain run-off from residue flush and dispose of properly. Place in container for proper disposal. Prevent entry into waterways, sewer, basements or confined areas. Remove contaminated soil to remove contaminated trace residues. Dispose of in same manner as material. For small spills: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

Proper disposal should be evaluated based on regulatory status of this material (see Section 15), potential contamination from subsequent use and spillage, and regulations governing disposal in the local area.

**Reporting:**

Notify authorities if any exposures to the general public or environment occurs or is likely to occur.

**SECTION 7****HANDLING AND STORAGE**

Avoid prolonged or repeated contact with eyes, skin and clothing. Avoid contact with eyes, skin and clothing. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling.

**Handling:**

This resin may be handled, shipped and stored at elevated temperature in bulk. The recommended pumping temperature is 180° F.

Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing before reuse. Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse. Keep containers closed when not in use. Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.

**Storage:**

Avoid contact with hot liquid to prevent thermal burns.

**SECTION 8****EXPOSURE CONTROLS/PERSONAL PROTECTION****Exposure Controls**

No exposure controls are ordinarily required under normal conditions of use.

**Personal Protection****Eye Protection:**

Chemical Goggles, if liquid contact is likely, or Safety Glasses

**Skin Protection:**

Use protective clothing which is chemical resistant to this material. Selection of protective clothing depends on potential exposure conditions and may include gloves, boots, suits and other items. The selection(s) should take into account such factors as job task, type of exposure and durability requirements.

Published literature, test data and/or glove and clothing manufacturers indicate protection is provided by:  
Butyl, or EVAL-Laminate

**Respiratory Protection:**

No respiratory protection is ordinarily required under normal conditions of use.

**SECTION 9****PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance & Odor:** Clear viscous liquid.

**Substance Chemical Family:** Epoxy Resin

<b>Boiling Point</b>	> 500 °F	<b>Flash Point</b>	480 °F [Pensky-Martens Closed Cup]
<b>Solubility (in Water)</b>	Negligible	<b>Specific Gravity</b>	1.17
<b>Stability</b>	Stable	<b>Vapor Pressure</b>	0.03 @ 77 °C

**SECTION 10****REACTIVITY AND STABILITY****Stability:**

Material is stable under normal conditions.

**Conditions to Avoid:**

Avoid high temperatures.

**Materials to Avoid:**

Can react vigorously with strong oxidizing agents, strong Lewis or mineral acids, and strong mineral and organic bases. Avoid contact with water or liquids. Do not allow molten material to contact water or liquids as this can cause violent eruptions, splatter hot material, or ignite flammable material. Reaction with some curing agents may produce considerable heat and possible violent decomposition.

**SECTION 11****TOXICOLOGICAL INFORMATION****Acute Toxicity**

BADGE Resin	Dermal • LD50	>20 ml/kg (Rabbit)
BADGE Resin	Oral • LD50	11.4 g/kg (Rat)

**Eye Irritation:**

Draize • 2 [Rabbit]

**Skin Irritation:**

Draize • 1.6 [Rabbit]

**Mutagenicity:**

Resins of this type, liquid resins based on diglycidyl ether of bisphenol A, have proved to be inactive when tested by in vivo mutagenicity assays. These resins have shown activity in in vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat liver cells. The significance of these tests to man is unknown.

**Carcinogenicity:**

Recent 2-year bioassays in rats and mice exposed by the dermal route to the diglycidyl ether of bisphenol A (BADGE) yielded no evidence of carcinogenicity to the skin or any other organs. This study clarifies prior equivocal results from a 2-year mouse skin painting study, which were suggestive, but not conclusive, for weak carcinogenic activity. Note: BADGE is a component in all BPA/ECH based liquid epoxy resins.

The International Agency for Research on Cancer (IARC) concluded that diglycidyl ether of bis-phenol A is not classifiable as a carcinogen (IARC group 3), that is human and animal evidence of carcinogenicity is inadequate.

Chemical Name	NTP	IARC	ACGIH	OSHA
BADGE Resin		Group 3-Not Classifiable		

**SECTION 12****ECOLOGICAL INFORMATION**

This section will be updated as ecological reviews are completed.

**SECTION 13****DISPOSAL CONSIDERATIONS****General Recommendations:**

If this material becomes a waste, it would not be a hazardous waste by RCRA criteria (40 CFR 261). Place in an appropriate disposal facility in compliance with local regulations.

**SECTION 14****TRANSPORT INFORMATION****US Department of Transportation Classification**

This material is not subject to DOT regulations under 49 CFR Parts 171-180.

**SECTION 15****REGULATORY INFORMATION****Federal Regulatory Status****Superfund Amendment & Reauthorization Act (SARA) Title III:****SARA Hazard Categories(31 1/312):**

Delayed (Chronic) Health Hazard.

**Toxic Substances Control Act (TSCA) Status:**

This material is listed on the EPA/TSCA Inventory of Chemical Substances.

**State Regulation**

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

**California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):**

Phenyl glycidyl ether (122-60-1)

CA-65 c

CA 65 C = The chemical identified with this code is known to the State of California to cause cancer.

**SECTION 16****OTHER INFORMATION****Revision#: 14**

Revision Date: 1 1/29/1999

**Revisions since last change (discussion):** This Material Safety Data Sheet has changed because Shell Chemical Company has implemented new software to generate the sheet. There will be slight differences in the hazard and precautionary language as we incorporate the guidance contained in the ANSI MSDS standard (ANSI Z400.1-1988). THERE ARE NO SIGNIFICANT CHANGES TO THE HEALTH, SAFETY OR PRECAUTIONARY MESSAGES. We encourage you to take the opportunity to reread the sheet and review the information contained.

**Product Codes:** 43240, K122F, K122K**ADMINISTRATIVE INFORMATION****Company Address:** Shell Chemical Company, P.O. Box 2463, Houston, TX. 77342-2463**Company Product Stewardship & Regulatory Compliance Contact:** Lori Evans**Phone Number:** (713) 241-7725**MSDS FAX-BACK Phone Number:** (800) 240-MSDS

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.

25195-10680-100R-1999-11-29 12:19:03