



DISCLAIMER: The information herein relates to the product named and is based upon information ALFA INTERNATIONAL CORPORATION considers accurate. No warranty expressed or implied is intended. This information is offered solely for your consideration and interpretation. The Corporate Safety and Environmental Affairs Department is responsible for the preparation of this Material Safety Data Sheet.

## MATERIAL SAFETY DATA SHEET

**Alfa International Corp.**

**ER 1650 Part A**

**MSDS Number: 607**

**MSDS Date: 8/17/06**

### PRODUCT INFORMATION

PRODUCT NAME: **ALFA ER1650 PART A** CHEMICAL NAME:  
HMIS HAZARD RATING: Health Hazard: 2 **Epoxy Resin**  
Fire Hazard: 1 24-HOUR EMERGENCY ASSISTANCE  
Reactivity: 0 **Chemtrec: (800) 424-9300**

### COMPOSITION

Chemical CASRN

DIGLYCIDYL ETHER  
OF BISPHENOL-A RESIN 25068-38-6

### TOXICOLOGICAL INFORMATION

Test Type	Result	Type	Animal Species
Acute Oral LD50	11.4	g/Kg	Rat
	15.6	g/Kg	Mouse
Acute Dermal LD50	>20	mL/Kg	Rabbit
Acute Inhalation LD50	N/A		

### HAZARD IDENTIFICATION

#### Emergency Overview

- **May be harmful if swallowed.**
- **May cause skin and/or eye irritation.**
- **May cause irritation of respiratory tract.**
- **Read MSDS completely before using product.**

#### Eye Contact:

May cause severe eye burns. Permanent loss of sight may result.

#### Skin Contact:

Liquid material may be absorbed through the skin in harmful amounts. May cause skin sensitization (allergic reaction). May cause severe burns unless washed off immediately.

#### Inhalation:

May cause respiratory sensitization (allergic reaction), and irritation. Avoid prolonged or repeated inhalation.

#### Oral Ingestion:

Do not take internally. Ingestion may cause severe burns of the mucous membranes of the mouth of the esophagus, and stomach pain, nausea and vomiting.

#### Effects of Repeated Exposure:

The supplier reports that repeated excessive overexposure may cause liver and kidney damage.

### FIRST AID MEASURES

#### Skin & Eye Contact:

FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND REMOVE CONTAMINATED CLOTHING. CONTACT A PHYSICIAN.

#### Inhalation:

MOVE TO FRESH AIR. IF SYMPTOMS PERSIST, CONSULT A PHYSICIAN.

#### Oral Ingestion:

DO NOT INDUCE VOMITING. GIVE A LARGE QUANTITY OF MILK OR WATER. DO NOT GIVE FLUIDS TO AN UNCONSCIOUS PERSON. CONTACT A PHYSICIAN.

#### Notes to Physician:

Corrosive. May cause stricture. If lavage is performed, suggest endotracheal and/or esophagoscopy control. If burn is present, treat as thermal burn after decontamination. No specific antidote. Supportive care. Treatment based on judgement of the physician in response to reactions of the patient.

## FIRE FIGHTING MEASURES

Flash Point: N/AP

### Recommended extinguishing media:

CARBON DIOXIDE, DRY CHEMICALS, OR ALCOHOL FOAM. POLYMER IS PREFERRED FOR LARGE FIRES.

### Unusual Fire or Explosion Hazards:

BURNING, INCLUDING WHEN HEATED BY WELDING OR CUTTING, WILL PRODUCE SMOKE, CARBON MONOXIDE AND CARBON DIOXIDE. **AVOID.**

## ACCIDENTAL RELEASE MEASURES

### Steps to take if spilled:

CONFINE IN SMALL AREA & USE AN ABSORBENT TO CLEAN UP. PLACE IN A CONTAINER FOR DISPOSAL.

## HANDLING & STORAGE

Keep container tightly closed when not in use. Store in a dry location.

## EXPOSURE CONTROLS/ PERSONAL PROTECTION

### Ventilation Requirements:

Local Exhaust Ventilation with sufficient volume and pattern to maintain exposure below nuisance dust and permissible exposure limits.

### Personal Protection Equipment Recommended for Normal Use Conditions:

#### *Eye Protection:*

Safety spectacles & chemicals splash goggles (ANSI Z87-1 or equivalent)

#### *Skin Protection:*

Impermeable gloves (neoprene).

#### *Respiratory Protection*

Proper selection of respiratory protection depends upon many factors including duration/level of exposure and conditions of use. In general, exposure to organic chemicals such as those contained in this product may not require the use of respiratory protection if use in well ventilated areas. In restricted ventilated areas, a NIOSH approved *chemical cartridge respirator* may be required. Under certain conditions such as spraying, a mechanical prefilter may also be required. In confined areas, use a NIOSH/MSHA approved air supplier respirator.

## PHYSICAL & CHEMICAL PROPERTIES

### Boiling Range:

N/AP

### Vapor Density:

N/AP

### Evaporation Rate:

N/AP

### Specific Gravity:

1.0

### Weight Lb./Gal.:

8.1

## STABILITY & REACTIVITY

### Normally Stable:

Yes

### Incompatible Materials:

Alkalis & Amines, Strong Acids or  
Silkline Materials.

### Conditions of Instability:

None Known

### Unusual Fire or Explosion Hazards (AVOID):

BURNING, INCLUDING WHEN HEATED BY WELDING OR CUTTING, WILL PRODUCE SMOKE, CARBON MONOXIDE AND CARBON DIOXIDE.

## ECOLOGICAL INFORMATION

N/D

## DISPOSAL CONSIDERATIONS

### Waste Disposal:

Consult state or local officials for proper disposal method.

## OTHER INFORMATION

N/D = Not Determined

N/A = Not Available

N/AP = Not Applicable

# MATERIAL SAFETY DATA SHEET

Alfa International Corp.

ER 1650 Part B

MSDS Number: 607-B

MSDS Date: 8/17/06

## PRODUCT INFORMATION

PRODUCT NAME:	ER1650 PART B	HEMICAL NAME:
HMIS HAZARD RATING:	Health Hazard: 3 Fire Hazard: 0 Reactivity: 0	<b>Polyamide Resin</b> 24-HOUR EMERGENCY ASSISTANCE <b>Chemtrec:</b> (800) 424-9300

## COMPOSITION

Chemical	CASRN	Hazard	TLV	STEL
POLYAMIDE RESIN	68410231	IRRITANT TO SKIN/EYE 100 +/- .00	N/A PPM	

## HAZARD IDENTIFICATION

### Emergency Overview

- May be harmful if swallowed.
- May cause skin and/or eye irritation.
- May cause irritation of respiratory tract.
- Read MSDS completely before using product.

### Other

- Polyethylene amines are suspected mutagens.
- No effects of chronic exposure or target organ effects are known.
- No exposure limits have been established for this product as formulated.

### Skin & Eye Contact:

May cause skin and eye irritation on prolonged or repeated exposure. Not considered toxic by skin absorption. Avoid contact. Wear protective clothing and eyewear. Wash thoroughly after handling.

### Inhalation:

May cause irritation to upper respiratory tract. Avoid prolonged or repeated inhalation.

### Oral Ingestion:

Do not take internally. Not considered toxic by animal tests but may be harmful if swallowed in large quantities.

### Routes of Exposure:

Inhalation	No
Dermal	Yes
Oral	No

## FIRST AID MEASURES

### Skin & Eye Contact:

FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND REMOVE CONTAMINATED CLOTHING. CONTACT A PHYSICIAN.

### Inhalation:

MOVE TO FRESH AIR. IF SYMPTOMS PERSIST, CONSULT A PHYSICIAN.

### Oral Ingestion:

DO NOT INDUCE VOMITING. GIVE A LARGE QUANTITY OF MILK OR WATER. DO NOT GIVE FLUIDS TO AN UNCONSCIOUS PERSON. CONTACT A PHYSICIAN.

## FIRE FIGHTING MEASURES

Flash Point:	>560°F	Test Method:	Cleveland Open Cup
Lower Flammable Limit:	N/D	Upper Flammable Limit:	N/D

### Recommended extinguishing media:

WATER, SPRAY, CO2, FOAM, DRY CHEMICAL

### Unusual Fire or Explosion Hazards:

MAY PRODUCE HAZARDOUS FUMES OR DECOMPOSITION PRODUCTS. **AVOID.**

### Hazardous decomposition products:

None known to ALFA INTERNATIONAL CORP.

### Special Fire Fighting Procedures:

WHEN FIRE FIGHTING, WEAR FULL PROTECTIVE EQUIPMENT INCLUDING SELF-CONTAINED BREATHING APPARATUS.

## ACCIDENTAL RELEASE MEASURES

### Steps to take if spilled:

USING ADEQUATE PROTECTIVE EQUIPMENT, ADD DRY MATERIAL TO ABSORB SPILL (IF LARGE SPILL, FIRST DIKE TO CONTAIN). PICK UP AND CONTAINERIZE. FLUSH AREA WITH DILUTE (5%) ACETIC ACID. COLLECT RINSATE FOR DISPOSAL.

## HANDLING & STORAGE

Keep container tightly closed when not in use. Store in a dry location.

## EXPOSURE CONTROLS/ PERSONAL PROTECTION

Ventilation Requirements:  
Local Exhaust

Personal Protection Equipment Recommended for Normal Use Conditions:

Eye Protection:  
Chemical goggles

Skin Protection:  
Rubber or Plastic Gloves.

Respiratory Protection:  
Respirator with Organic Vapor Cartridge  
(N/A with Local Exhaust)

**PHYSICAL & CHEMICAL PROPERTIES**

<u>Physical State:</u> Liquid	<u>Odor:</u> Ammoniacal	<u>Appearance:</u> Viscous Amber Liquid
<u>pH:</u> N/D	<u>Boiling Point:</u> N/D	<u>Melting Point:</u> N/D
<u>Specific Gravity:</u> .970	<u>Water Miscibility:</u> Slight 0.1 to 1%	<u>Percent Volatile:</u> 0 to 70°F
<u>Vapor Density:</u> N/D	<u>Vapor Pressure:</u> N/D	<u>VOC Content by WT. (EPA Method 24):</u> N/A

**STABILITY & REACTIVITY**

<u>Normally Stable:</u> Yes	<u>Incompatible Materials:</u> None Known	<u>Conditions of Instability:</u> None Known
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Unusual Fire or Explosion Hazards (AVOID):  
MAY PRODUCE HAZARDOUS FUMES OR DECOMPOSITION PRODUCTS. NONE KNOWN TO ALFA INTERNATIONAL CORPORATION.

**TOXICOLOGICAL INFORMATION**

Test Type	Result	Type	Animal Species	Hazard	Rank
Eye Irritation	68.8	0-110 Range	Rabbit	Severe	TRNO
Oral LD(50)	> 8.0	g/Kg est. LD50	Rat	Slight	TRNO
Skin Irritation	3.4	0-8 Range	Rabbit	Moderate	TRNO

**ECOLOGICAL INFORMATION**

N/D

**DISPOSAL CONSIDERATIONS**

Waste Disposal:  
This product, if disposed as shipped, is not a hazardous waste as specified in 40 CFR 261. Consult state or local officials for proper disposal method.

**TRANSPORTATION INFORMATION**

<u>DOT Hazard Class:</u> N/A	<u>DOT Hazardous Materials:</u> N/A	<u>UN/NA:</u> N/A	<u>Emergency Response Guide:</u> 00
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Harmonize Number: 3908.90.0000 8

Packaging Group: None

**REGULATORY INFORMATION**

<u>TSCA:</u> 5(A)(2) SNUR: None 5(E) Consent Order: None 5(H)(3) R&D Exempt: No 8(B) Inventory Status: This product and/or all of its components are registered as required by TSCA.	<u>SARA TITLE III:</u> 302EHS: None 302 (CERCLA): None 311/312 Product Hazard Class: Acute Chronic Fire Sudden Release Reactive None	Yes No No No No No
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12(B) Export Notification: None

313 Toxic Chemicals:

**OTHER INFORMATION**

N/D = Not Determined	PPM = Parts per Million
N/A = Not Available	g/Kg = Grams per Kilogram
TRNO = Test Report	