

# MATERIAL SAFETY DATA SHEET

## EU-100 Lightweight HARDENER COMPONENT

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### SECTION 1: PRODUCT IDENTIFICATION AND USE

**MFG'S NAME:** AMERICAN SAFETY TECHNOLOGIES INC.  
565 Eagle Rock Ave.  
Roseland, New Jersey 07068  
(973) 403-2600

**TRADE NAME:** EU-100 Lightweight  
HARDENER COMPONENT

**CHEMICAL FAMILY:** EPOXY

DOT SHIPPING CLASSIFICATION (49 CFR 172.101): (Not Regulated)  
TRANSPORTATION EMERGENCY NO. (CHEMTREC): 1-800-424-9300  
MFG'S DUNN'S NO: 002-171-213

**HMIS RATING:**  
**HEALTH** =2  
**FLAMMABILITY**=1  
**REACTIVITY** =0

**NATIONAL STOCK NO:** SPEC: (Type, Grade, or Class)  
MIL-D-3135 Type I/II Class 2

**CONTRACT OR ORDER NO.**

**PREPARED BY:** J. Hermele

**DATE:** 11/20/2002

**REVISION:** 0

### SECTION 2: HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

INGREDIENTS	CAS NO.	% WT.	OSHA	ACGIH
Propoxylated Triethylenetetramine	26950-63-0	>80	N.E.	N.E.
Triethylene Tetramine	112-24-3	<20	N.E.	N.E.

**SECTION 313 SUPPLIER INFORMATION:** THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40 CFR 372. THIS INFORMATION MUST BE INCLUDED ON THE MSDS COPIED AND DISTRIBUTED FOR THIS MATERIAL.

(N.E. = Not Established)

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
None		

### SECTION 3: PHYSICAL DATA

<b>BOILING POINT:</b>	> 200°F/93°C	<b>SPECIFIC GRAVITY:</b>	1.02
<b>VAPOR PRESSURE:</b>	< 0.01mmHg @ 68°F/20°C	<b>MELTING POINT:</b>	N.A.
<b>VAPOR DENSITY:</b>	N.A. (AIR = 1)	<b>EVAPORATION RATE:</b>	N.A. (Butyl Acetate = 1)
<b>SOLUBILITY IN WATER:</b>	Miscible		
<b>APPEARANCE AND ODOR:</b>	Yellow Liquid, Amine Odor		

(N.A. = Not Applicable)

### SECTION 4: FIRE AND EXPLOSION HAZARD

**FLASH POINT:** > 340°F/171°C PMCC      **FLAMMABLE LIMITS:** LEL    UEL  
N.E.    N.E.

**EXTINGUISHING MEDIA:** Carbon Dioxide, Foam, Dry Chemical or Water Spray.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained breathing apparatus and complete personal protective equipment where potential for exposure to vapors of products of combustion exists.

**UNUSUAL FIRE AND EXPLOSIVE HAZARDS:** Decomposition and combustion products may be toxic.

# MATERIAL SAFETY DATA SHEET

## EU-100 LITE AGGREGATE COMPONENT

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### SECTION 1: PRODUCT IDENTIFICATION AND USE

**MFG'S NAME:** ITW AMERICAN SAFETY TECHNOLOGIES

565 Eagle Rock Ave.  
Roseland, New Jersey 07068  
(973) 403-2600

**TRADE NAME:** EU-100 LITE  
AGGREGATE COMPONENT

**CHEMICAL FAMILY:** N.A.

DOT SHIPPING CLASSIFICATION (49 CFR 172.101): (Not Regulated)  
TRANSPORTATION EMERGENCY NO. (CHEMTREC): 1-800-424-9300  
MFG'S DUNN'S NO: 002-171-213

**HMIS RATING:**  
Health =1  
Flammability =0  
Reactivity =0

**NATIONAL STOCK NO:** SPEC: (Type, Grade, or Class)  
MIL-D-3135 Type I/II Class 2

**CONTRACT OR ORDER NO.**

**PREPARED BY:** J. Hermele

**DATE:** 11/20/2002

**REVISION:** 0

### SECTION 2: HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

INGREDIENTS	CAS NO.	% WT.	OSHA	ACGIH	OTHER
Alumina Silicate	68131-74-8	40%	8HrTWA 10mg/m3	8HrTWA 10mg/m3	(Respirable Dust)
Amorphous Silica	1332-09-8	60 %	80mg/m3	10mg/m3	( Inhalable) 3 mg/3 (Respirable)
Quartz	14808-60-7	<0.1	10mg/m3	0.05 mg/m3	(Respirable)

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<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
None		

### SECTION 3: PHYSICAL DATA

**BOILING POINT:** N.A.      **SPECIFIC GRAVITY:** 1.7  
**VAPOR PRESSURE:** N.A.      **MELTING POINT:** N.A.  
**VAPOR DENSITY:** N.A. (AIR = 1)      **EVAPORATION RATE:** N.A. (Butyl Acetate = 1)  
**SOLUBILITY IN WATER:** Insoluble  
**APPEARANCE AND ODOR:** White or Gray, No Odor  
(N.A. = Not Applicable)

### SECTION 4: FIRE AND EXPLOSION HAZARD

**FLASH POINT:** N.A.      **FLAMMABLE LIMITS:** LEL      UEL  
N.A.      N.A.

**EXTINGUISHING MEDIA:** N.A. (Can be used to smother fires).

**SPECIAL FIRE FIGHTING PROCEDURES:** None.

**UNUSUAL FIRE AND EXPLOSIVE HAZARDS:** None. Material is non-combustible.

### SECTION 5: HEALTH HAZARD DATA

**PRIMARY ROUTES OF ENTRY:** Inhalation

**HEALTH HAZARDS (ACUTE AND CHRONIC)**

Eyes: Dust may cause transient eye irritation.  
Skin: Dust may cause transient skin irritation.

# EU-100 LITE AGGREGATE COMPONENT

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## SECTION 5: HEALTH HAZARD DATA (Cont'd).

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### HEALTH HAZARDS (ACUTE AND CHRONIC)

- Inhalation: Health hazards occur from excessive inhalation. Irritation to upper respiratory tract and lungs may result from accidental or chronic occupational exposure to the dust in this product. Dust may also cause lung damage when inhaled.
- Ingestion: No known adverse health effects.

**CONDITIONS AGGRAVATED BY EXPOSURE:** Respiratory Diseases.

**CARCINOGENIC DATA:** NTP – No , IARC – Vol.68(1997), In Group 3 (Not classifiable as to carcinogenicity to humans. – Not Regulated by OSHA.

**OVEREXPOSURE EFFECTS:** Exposure may result in coughing, wheezing, shortness of breath, tightness in chest, irritation of the upper respiratory tract, and damage to lung tissue. Although the aggregates in this product have less than 0.1% respirable crystalline silica content, grinding or milling during removal by mechanical abrasion, may generate levels of crystalline silica in excess of 0.1%. Appropriate safety practices should be followed to prevent inhalation of airborne dusts. The International Agency for Research on Cancer (“IARC”) concluded that there was “sufficient evidence in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite from occupational sources.”, the overall IARC evaluation was that “crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans ( Group 1). NTP, in its Ninth Annual Report on Carcinogens, has classified “silica, crystalline (respirable)” to be a carcinogen.” Crystalline silica is not regulated by OSHA as a carcinogen.

### EMERGENCY AND FIRST AID PROCEDURES:

- Eyes: Flush with large quantities of water to remove particles.
- Skin: Wash with mild soap and water.
- Inhalation: Remove to fresh air.
- Ingestion: None.

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## SECTION 6: REACTIVITY DATA

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**STABILITY:** Stable

**CONDITIONS TO AVOID:** N.E.

**INCOMPATIBILITY (Materials to Avoid):** Strong Alkalies, Metallic Oxides at high temperatures and Hydrofluoric Acid.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hydrofluoric Acid generates volatile Silicon Tetrafluoride.

**HAZARDOUS POLYMERIZATION:** Will not occur.

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## SECTION 7: SPILL OR LEAK PROCEDURES

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**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Use respiratory protection for airborne dust. Vacuum or scoop for recovery or disposal. Wetting spill with a water spray will help to keep dust levels down; use good ventilation if possible.

**WASTE DISPOSAL METHODS:** Not considered a hazardous waste; can be used as a soil sweetener.

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## SECTION 8: SPECIAL PROTECTION INFORMATION

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**RESPIRATORY PROTECTION:** NIOSH/MSHA approved disposable half-mask for dust/mist if required.

**VENTILATION:** Local exhaust as appropriate. Mechanical ventilation is recommended.

**PROTECTIVE GLOVES:** Leather or Rubber gloves.

**EYE PROTECTION:** Safety glasses or dust-tight goggles.

**OTHER PROTECTIVE EQUIPMENT:** An eye wash facility should be available in material handling area.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Use dustless system of storage and handling. Keep well-ventilated.

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## SECTION 9: SPECIAL / OTHER INSTRUCTIONS

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**CALIFORNIA PROPOSITION 65 INFORMATION:** WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. (Silicon Dioxide: Respirable Particles)

# MATERIAL SAFETY DATA SHEET

## EU-100 Lightweight BASE COMPONENT

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### SECTION 1: PRODUCT IDENTIFICATION AND USE

MFG'S NAME: ITW AMERICAN SAFETY TECHNOLOGIES  
565 Eagle Rock Ave.  
Roseland, New Jersey 07068  
(973) 403-2600

TRADE NAME: EU-100 Lightweight  
**BASE COMPONENT**

**CHEMICAL FAMILY: EPOXY**

DOT SHIPPING CLASSIFICATION: (Not Regulated)  
TRANSPORTATION EMERGENCY NO. (CHEMTREC): 1-800-424-9300  
MFG'S DUNN'S NO: 002-171-213

**HMIS RATING:**  
**Health** =2  
**Flammability** =1  
**Reactivity** =0

**NATIONAL STOCK NO:** **SPEC:** (Type, Grade, or Class)  
MIL-D-3135 Type I/II Class 2

**CONTRACT OR ORDER NO.**

**PREPARED BY:** J. Hermele

**DATE:** 2/17/2004

**REVISION:** 0

### SECTION 2: HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

INGREDIENTS	CAS NO.	% WT.	OSHA	ACGIH	OTHER
Epoxy Resin	25068-38-6	70-100	N.E.	N.E.	LD50RAT >5g/kg (Oral)
Aliphatic Monoglycidyl Ether	68609-97-2	0-30%	N.E.	N.E.	LD50RAT >17g/kg (Oral)

(N.E. = Not Established)

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<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
None		

### SECTION 3: PHYSICAL DATA

**BOILING POINT:** > 300°F/149°C      **SPECIFIC GRAVITY:** 1.1  
**VAPOR PRESSURE:** < 1.0mmHg @ 68°F/20°C      **MELTING POINT:** N.A.  
**VAPOR DENSITY:** N.A. (AIR = 1)      **EVAPORATION RATE:** < 1.0(Butyl Acetate = 1)  
**SOLUBILITY IN WATER:** Insoluble  
**APPEARANCE AND ODOR:** Hazy Clear Liquid, Mild Odor  
(N.A. = Not Applicable)

### SECTION 4: FIRE AND EXPLOSION HAZARD

**FLASH POINT:** > 200°F/93°C PMCC

**FLAMMABLE LIMITS:** LEL      UEL  
N.E.      N.E.

**EXTINGUISHING MEDIA:** Carbon Dioxide, Chemical Foam, Dry Chemical or Water Spray.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained breathing apparatus and complete personal protective equipment where potential for exposure to vapors of products of combustion exists.

**UNUSUAL FIRE AND EXPLOSIVE HAZARDS:** Decomposition and combustion products may be toxic.

# EU-100 Lightweight BASE COMPONENT

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## SECTION 5: HEALTH HAZARD DATA

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**PRIMARY ROUTES OF ENTRY:** Inhalation/Skin/Ingestion

**HEALTH HAZARDS (ACUTE AND CHRONIC)**

Eyes: Irritant  
Skin: Irritant. May cause allergic skin reaction which can be severe in certain individuals.  
Inhalation: May cause nose and throat irritation.  
Ingestion: No specific information available. Contains materials that may be slightly toxic.

**CONDITIONS AGGRAVATED BY EXPOSURE:** Allergy, eczema and other skin conditions.

**CARCINOGENIC DATA:** Not on NTP, IARC or OSHA lists.

**OVEREXPOSURE EFFECTS:** Irritation, sensitization and dermatitis.

**EMERGENCY AND FIRST AID PROCEDURES:**

Eyes: Flush with large quantities of water for at least 15 minutes and get medical attention.  
Skin: Remove contaminated clothing and wash contact area with mild soap and water.  
Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen.  
Ingestion: Give large quantities of water to dilute and induce vomiting. Get medical attention.

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## SECTION 6: REACTIVITY DATA

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**STABILITY:** Stable

**CONDITIONS TO AVOID:** Excessive Heat

**INCOMPATIBILITY (Materials to Avoid):** Strong Oxidizing Agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon Monoxide and Carbon Dioxide.

**HAZARDOUS POLYMERIZATION:** Will not occur.

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## SECTION 7: SPILL OR LEAK PROCEDURES

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**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Avoid all personal contact. Dike Spill. Absorb with inert material and collect for disposal. Flush contaminated area with water; prevent washings from entering waterways.

**WASTE DISPOSAL METHODS:** Dispose of in accordance with Federal, State and Local Regulations.

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## SECTION 8: SPECIAL PROTECTION INFORMATION

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**RESPIRATORY PROTECTION:** NIOSH/MSHA approved respirator with organic vapor cartridge if required.

**VENTILATION:** Mechanical ventilation and local exhaust are recommended. Mechanical exhaust is not recommended as the sole means of controlling employee exposure.

**PROTECTIVE GLOVES:** Impervious gloves.

**EYE PROTECTION:** Chemical splash-proof goggles.

**OTHER PROTECTIVE EQUIPMENT:** In operations where contact may occur coveralls, apron and impervious foot covering are recommended.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Avoid all personal contact. Do not exceed 100°F/43°C in storage area.

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## SECTION 9: SPECIAL / OTHER INSTRUCTIONS

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- \* A safety shower and eye wash facility should be available to employees.
- \* Immediately remove and thoroughly launder contaminated clothing before reuse.

# EU-100 Lightweight HARDENER COMPONENT

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## SECTION 5: HEALTH HAZARD DATA

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**PRIMARY ROUTES OF ENTRY:** Inhalation/Skin

**HEALTH HAZARDS (ACUTE AND CHRONIC)**

Eyes: Moderate eye irritant, causes irritation, redness and discomfort which is transient.  
Skin: Irritant. May cause sensitization and/or allergic skin reaction which can be severe in certain individuals.  
Inhalation: Causes upper respiratory tract irritation and mucous membrane irritation.  
Ingestion: No specific information available. Contains material that may be slightly toxic.

**CONDITIONS AGGRAVATED BY EXPOSURE:** Allergy, eczema and other skin conditions.

**CARCINOGENIC DATA:** Not on NTP, IARC or OSHA lists.

**OVEREXPOSURE EFFECTS:** Irritation, sensitization and dermatitis.

**EMERGENCY AND FIRST AID PROCEDURES:**

Eyes: Flush with large quantities of water for at least 15 minutes. Get medical attention.  
Skin: Remove contaminated clothing and wash contact area with mild soap and water. If irritation develops or persists, get medical attention.  
Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen.  
Ingestion: Get immediate medical attention. If conscious, give large quantities of water to dilute, but do not induce vomiting.

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## SECTION 6: REACTIVITY DATA

---

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Excessive Heat

**INCOMPATIBILITY (Materials to Avoid):** Strong Oxidizing Agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon Monoxide, Carbon Dioxide, Aldehydes and Oxides of Nitrogen.

**HAZARDOUS POLYMERIZATION:** Will not occur.

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## SECTION 7: SPILL OR LEAK PROCEDURES

---

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Avoid all personal contact. Dike Spill. Absorb with inert material and collect for disposal. Flush contaminated area with water; prevent washings from entering waterways.

**WASTE DISPOSAL METHODS:** Dispose of in accordance with Federal, State and Local Regulations.

---

## SECTION 8: SPECIAL PROTECTION INFORMATION

---

**RESPIRATORY PROTECTION:** NIOSH/MSHA approved respirator with organic vapor cartridge if required.

**VENTILATION:** Mechanical ventilation and local exhaust are recommended. Mechanical exhaust is not recommended as the sole means of controlling employee exposure.

**PROTECTIVE GLOVES:** Impervious gloves.

**EYE PROTECTION:** Chemical splash-proof goggles.

**OTHER PROTECTIVE EQUIPMENT:** In operations where contact may occur, coveralls, apron and impervious foot covering are recommended.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Avoid all personal contact. Do not exceed 110°F/43°C in storage area.

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## SECTION 9: SPECIAL / OTHER INSTRUCTIONS

---

- \* A safety shower and eye wash facility should be available to employees.
- \* Immediately remove and thoroughly launder contaminated clothing before reuse.