

MATERIAL SAFETY DATA SHEET

MS-400G LSA BASE COMPONENT

Document #3170

Page 1 of 2

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: MS-400G LSA
BASE COMPONENT

CHEMICAL FAMILY: EPOXY

Dot Shipping Classification (49CFR 172.101): Paint, Combustible Liquid, UN1263,III
Transportation Emergency Number (CHEMTREC): 1-800-424-9300
Mfg's Dunn's No: 002-171-213

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

COMMER'L & GOV'T ENTITY (CAGE) CODE: 88444

NATIONAL STOCK NO: 8010-01-397-3802
8010-01-397-3806
SPEC: (Type, Grade, or Class)
MIL-PRF-24667B (Navy) Type I Comp G

CONTRACT OR ORDER NO.

PREPARED BY: J. Hermele

DATE: 12/8/00

REVISION: 5

SECTION 2: HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

| INGREDIENTS | CAS No | % WT. | OSHA | ACGIH | OTHER |
|------------------------|------------|--------|--------------|--------------|---------------------|
| Epoxy Resin | 25068-38-6 | 10-20% | N.E. | N.E. | LD50RAT>5g/Kg(Oral) |
| Polyglycol Epoxy Resin | 41638-13-5 | < 3% | N.E. | N.E. | |
| Barium Sulfate | 7727-43-7 | 20-35% | 10mg/m3 dust | 10mg/m3 dust | |
| Calcium Metasilicate | 13983-17-0 | < 3% | 10mg/m3 dust | 10mg/m3 dust | |
| Aluminum Oxide | 1344-28-1 | 40-50% | 15mg/m3 dust | 10mg/m3 dust | |
| Methyl-N-Amyl Ketone | 110-43-0 | < 2% | N.E. | 100ppm | |
| Aromatic Naphtha | 64742-95-6 | < 2% | 100ppmTWA | 100ppmTWA | |

* Contains less than 0.1% Crystalline Silica
(N.E. = Not Established)

SECTION 313 SUPPLIER INFORMATION: THIS PRODUCT CONTAINS THE FOLLOWING 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.

Chemical Name
None

CAS Number

Weight %

SECTION 3: PHYSICAL DATA

BOILING POINT: >240°F/116°C
VAPOR PRESSURE: 8mmHg @ 68°F/20°C
VAPOR DENSITY: 3.1 (AIR = 1)
SOLUBILITY IN WATER: Slight
APPEARANCE AND ODOR: Pigmented Viscous Liquid, Mild Odor.

SPECIFIC GRAVITY: 2.3
MELTING POINT: N.E.
EVAPORATION RATE: 0.7 (Butyl Acetate = 1)

SECTION 4: FIRE AND EXPLOSION HAZARD

FLASH POINT: >101F/38C SETA

FLAMMABLE LIMITS: LEL UEL
1.62 11.8

EXTINGUISHING MEDIA: Dry Chemical and Chemical Foam.

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

UNUSUAL FIRE AND EXPLOSIVE HAZARDS: Closed containers may rupture (due to build up of pressure) when exposed to extreme heat. Decomposition and combustion products may be toxic.

MS-400G LSA BASE COMPONENT

Page 2 of 2

SECTION 5: HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY: Inhalation/Skin/Ingestion

HEALTH HAZARDS (ACUTE AND CHRONIC)

Eyes: Irritant. Aggregate may cause injury.
Skin: May cause moderate irritation and sensitization.
Inhalation: Vapors may cause headaches, nausea, dizziness and respiratory 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. Get medical attention.
Skin: Remove contaminated clothing. Wash contact area with mild soap and water for 15 minutes.
Inhalation: Remove to fresh air. If breathing has stopped administer artificial respiration and seek medical attention.
Ingestion: Do not induce vomiting (contains solvent). Get medical attention.

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 and Aldehydes.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 7: SPILL OR LEAK PROCEDURES

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

WASTE DISPOSAL METHODS: This product, if disposed as shipped, meets EPA criteria of a hazardous waste as specified in 40 CFR 261 on the basis of its ignitability. Dispose of in a licensed hazardous waste facility in accordance with applicable laws.

SECTION 8: SPECIAL PROTECTION INFORMATION

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

VENTILATION: Explosion-proof 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. Ground and bond metal containers for liquid transfer to avoid static sparks.

SECTION 9: SPECIAL / OTHER INSTRUCTIONS

* A safety shower and eye wash facility should be available to employees.

* Contaminated clothing should be removed immediately and thoroughly laundered before reuse.

MATERIAL SAFETY DATA SHEET

MS-400 / MS-440 HARDENER COMPONENT

Document # 3220

SECTION 1: PRODUCT IDENTIFICATION AND USE

Page 1of2

MFG'S NAME: ITW AMERICAN SAFETY TECHNOLOGIES

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

**TRADE NAME: MS-400 / MS-440
HARDENER COMPONENT**

CHEMICAL FAMILY: AMINE COMPOUND

DOT SHIPPING CLASSIFICATION (49 CFR 172.101): Paint,8,UN3066,III
TRANSPORTATION EMERGENCY NUMBER (CHEMTREC): 1-800-424-9300
MFG'S DUNN'S NO: 002-171-213

HMIS RATING:
Health =3
Flammability =1
Reactivity =1

COMMER'L & GOV'T ENTITY (CAGE) CODE: 88444

NATIONAL STOCK NO: SPEC: (Type, Grade, or Class)
MIL-PRF-24667B (Navy) Type I/II Comp G & L

CONTRACT OR ORDER NO.

PREPARED BY: J. Hermele

DATE: 12/8/00

REVISION: 4

SECTION 2: HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

| INGREDIENTS | CAS NO. | % VOL | OSHA | ACGIH | OTHER |
|------------------------|------------|-------|------|-------|-------------------------|
| Fatty Amidoamine Resin | 68991-84-4 | >50% | N.E. | N.E. | |
| Amidoamine Resin | 68443-08-3 | <50% | N.E. | N.E. | LD/50RAT>1.23mL/Kg Oral |

(N.E. = Not Established)

SECTION 313 SUPPLIER INFORMATION: THIS PRODUCT CONTAINS THE FOLLOWING 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.

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

SECTION 3: PHYSICAL DATA

BOILING POINT: N.E. **SPECIFIC GRAVITY:** 0.90
VAPOR PRESSURE: N.E. **MELTING POINT:** N.E.
VAPOR DENSITY: N.E. **EVAPORATION RATE:** N.E. (Butyl Acetate = 1)
SOLUBILITY IN WATER: Slight
APPEARANCE AND ODOR: Yellow Paste, Ammoniacal Odor.

SECTION 4: FIRE AND EXPLOSION HAZARD

FLASH POINT: >230°F/110°C SETA **FLAMMABLE LIMITS:** LEL UEL
N.E. N.E.

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

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

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

MS-400 / MS-440 HARDENER COMPONENT

SECTION 5: HEALTH HAZARD DATA

Page2of2

PRIMARY ROUTES OF ENTRY: Inhalation/Skin/Ingestion

HEALTH HAZARDS (ACUTE AND CHRONIC)

Eyes: Causes severe irritation or burns. May cause permanent visual impairment.
Skin: Causes severe irritation or burns. May be absorbed through skin in harmful amounts.
Inhalation: May cause nose and throat irritation.
Ingestion: May cause burns of mouth and throat. 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. Wash contact area with mild soap and water for 15 minutes.
Inhalation: Remove to fresh air. If symptoms persist consult a physician.
Ingestion: Do not induce vomiting. If conscious, give large quantities of water to dilute. Get medical attention.

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, and Oxides of Nitrogen.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 7: SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Dike Spill. Absorb with inert material and collect for disposal. Flush contaminated area with dilute (5%) acetic acid and collect rinsate for disposal.

WASTE DISPOSAL METHODS: 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.

SECTION 8: SPECIAL PROTECTION INFORMATION

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

VENTILATION: Local exhaust recommended. Mechanical ventilation is not recommended as the sole means of controlling employee exposure.

PROTECTIVE GLOVES: Impervious rubber or plastic 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. Ground and bond metal containers for liquid transfer to avoid static sparks.

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.