

Engineered Polymers, LLC.
2842 Progress Road Madison, WI 53716

Phone: (608) 661-2800
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RAP-45U B-Side

MATERIAL SAFETY DATA SHEET

Product Name: RAP- 45U B Side **10/21/2003**

1. **HAZARDOUS INGREDIENTS:** %w/w TLV/PEL

Aspartic Ester (Specific chemical identity is withheld as a trade secret.)
OSHA: Not Established
ACGIH: Not Established

2. **PHYSICAL DATA:**

Boiling Point: not established Physical Form: Liquid
Vapor Pressure: not established Bulk Density: 91b./gal
Sal. In Water: resin is insoluble Specific Gravity: 1.13
% Volatile by Weight: Negligible Appearance: Amber
Melting/Freezing: Not Established Physical Form: Liquid
Vapor Pressure: Not Established Odor: Slight

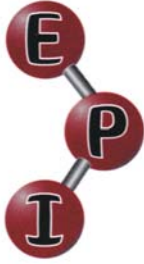
3. **FIRE AND EXPLOSION HAZARD:**

Flash Point: 94.0°C
Method Used: Dry chemical, foam, carbon dioxide, and water
Special fire fighting procedures: Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. During a fire, HDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion.
Ammonia maybe released when heated in air.

4. **HUMAN HEALTH DATA:**

Route of Entry: Inhalation, skin contact, eye contact

Acute Effects of Exposure: Aliphatic diamines, as a class of chemicals, are corrosive to the eyes and skin. However, based on the animal toxicity data for a similar product, we would not expect this material to be corrosive.



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Chronic Effects of Exposure: Skin sensitization may result from prolonged or repeated skin contact.

Carcinogenicity:

NTP:	Not Listed
IARP:	Not Listed
Osha:	Not Listed

Medical Conditions Aggravated By Exposure: May aggravate an existing dermatitis or other allergic reactions.

Exposure Limits: Not established for this product.

5. EMERGENCY AND FIRST AID PROCEDURES:

Eyes: Flush with clean, lukewarm water (low pressure) for at least 15 minutes, while lifting eyelids. Obtain medical attention.

Skin: Flush skin with soap and water while removing contaminated clothing and shoes. Wash skin with soap and water. Obtain medical attention immediately.

Inhalation: Remove patient to fresh air if breathing becomes difficult. If breathing has stopped administer artificial respiration. Administer oxygen if necessary. Consult a physician.

Ingestion: DO NOT INDUCE VOMITING! Give 2 cups of water for dilution. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON. Consult physician immediately.

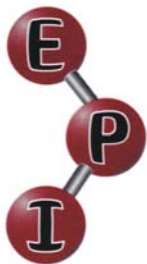
Note to Physician: Treat any ill effects symptomatically.

6. EMPLOYEE PROTECTION RECOMMENDATIONS:

Eye Protection Requirements: Liquid chemical goggles or full face shield. Contact lenses should not be worn.

Skin Protection Requirements: Permeation resistant gloves (butyl rubber, nitrile rubber).

For spraying only.



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7. REACTIVITY DATA

Stability: Stable

Hazardous Polymerization: Will no occur

Incompatibilities: Oxidizing materials

8. SPILL AND LEAK PROCEDURES:

Spill or leak procedures: Remove all sources of ignition and ventilate the area. Equip clean up crew with appropriate protective equipment (See Employee Protection Recommendations). Dyke or impound spilled material and control further spillage if feasible. Notify appropriate authorities if necessary. Cover spill with sawdust, vermiculite, Fuller's earth or other absorbent material; collect material in open containers. Remove containers to a safe place and cover.

Waste Disposal Method: Waste material must be disposed of in accordance with federal, state and local environmental control regulations. Empty containers must be handled with care due to product residue. **DO NOT HEAT OR CUT CONTAINERS WITH ELECTRIC OR GAS TORCH.**

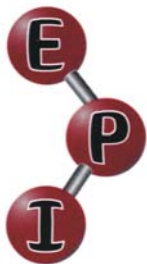
9. HANDLING AND STORAGE:

Storage Temperature 9mm(max): Ambient

Shelf life: Not Established

Special Sensitivity: Material is hygroscopic and may absorb small amounts of atmospheric moisture.

Handling/Storage Precautions: Containers should be tightly sealed to prevent contamination with foreign materials and moisture. Take precautions against the buildup of electrostatic charges. Keep away from heat, sparks, and open flame.



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10. **SHIPPING INFORMATION:**

Technical Shipping Name: Aspartic Ester
Freight Class Bulk: Not Applicable
Freight Class Package: Chemicals, NOI (isocyanate), (NMFC 60000)
DOT (Domestic Surface)- Hazard Class or Division: Non- Regulated
IMO/IMDG CODE (Ocean)- Hazard Class Division Number: Non-Regulated
ICAO/IATA (Air)- Hazard Class Division Number: Non-Regulated

11. **ANIMAL TOXICITY DATA:**

Acute Toxicity:

Oral LD50: Greater than 2000 mg/kg (rats)

Eye Effects: Non-irritant (rabbit)

Skin Effects: Slight to moderate irritant (rabbit)

Sensitization: Sensitization test according to Magnusson/Kligmann (maximizing test):
The results of test in guinea pigs showed a significant skin sensitizing potential.

Mutagenicity: Ames Test: No indication of mutagenic effects.

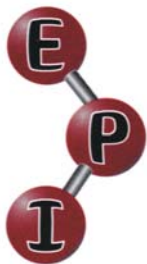
12. **REGULATORY INFORMATION:**

OSHA Status: This product is hazardous under the criteria of the Federal

OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Status: On TSCA inventory

CERCLA Reportable Quantity: None



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SARA Title III: Section 302 Extremely Hazardous Substances: None
Section 311/312 Hazard Categories: Immediate Health
Hazard; Delayed Health Hazard; Fire Hazard
Section 313 Toxic Chemicals: None

RCRA Status: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

The following chemicals are specifically listed by individual states; other product specific health and safety data mother 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.

Aspartic Ester

NJTSRN (31765300002)- 7031P Concentration: 100% State Code: PA3, NJ4

NJ4=New Jersey Other - included in 5 predominant ingredients > 1%

NJTSRN=New Jersey Trade Secret Registry Number

PA3=Pennsylvania Non-hazardous present at 3% or greater.

HMIS RATINGS:	HEALTH	FLAMMABILITY	REACTIVITY
	2*	1	0

0 =Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

This material safety data sheet contains at least the information required by the federal OSHA hazard communication rule, 29 CFR 1910.1200 (g) (2)

The responsibility to provide a safe workplace remains with user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and to develop work practice procedures for a safe work environment.

The information contained herein is, to the best of our knowledge and belief, accurate. However, because the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all federal, state, and local laws and regulations.