



Engineered Polymers, Inc.



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Effective Date: 10/21/2003

Material Safety Data Sheet

RAP B-Side

In an Emergency Call Chemtrec at 1-800-424-9300

1. Product Identification

Trade Name: RAP B-Side

Chemical Family: Modified Aliphatic Polyamine

Intended Use or Product Type:
Additive for Polyurea

Health	3
Flammability	1
Reactivity	0
Protective Equipment	X

HMIS RATING

2. Composition/Information on Ingredients

OSHA Hazardous Ingredients: ACGIH TWA for Poly(oxy(methyl-1, 2-ethanediyl)), alpha-(2-aminomethylethyl)omega-(2-aminomethylethoxy)- has a skin notation.

O S H A	CAS No.	Chemical Identity	Exposure Limits				Carcinogen Status			
			ACGIH		OSHA		MFR	IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
*	9046-10-0	Aliphatic Diamine	1ppm	NE	NE	NE	NE	NR	NR	NR
	Common Name									
*	Trade Secret Common Name	Organommodified siloxane	NE	NE	NE	NE	NE	NR	NR	NR
	Common Name									
	623-91-6	Aliphatic Carboxylic Ester < 5 %	NE	NE	NE	NE	NE	NR	NR	NR
	Common Name									

NE = Not Established NR = Not Reviewed * = OSHA Hazardous Ingredient

3. HAZARDS IDENTIFICATION

Emergency Overview: Corrosive. Will cause eye and skin burns.

Primary Route(s) of Entry: Dermal

4. First Aid Measures

Ingestion: If swallowed, give at least 3-4 glasses of water but do not induce vomiting. If vomiting occurs, give water again. Do not give anything by mouth to an unconscious or convulsing person. Get medical attention. Have physician determine whether vomiting or stomach evacuation is necessary.

Skin: For skin contact, immediately wipe away excess material with a dry towel while removing contaminated clothing and shoes. Under a safety shower, wash affected areas thoroughly with large amounts of water, and soap if available, for at least 15 minutes. Get immediate medical attention. Discard or decontaminate clothing before re-use and destroy contaminated shoes.

Inhalation: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Eyes: For eye contact, immediately flush eyes for at least 15 minutes with running water. Hold eyelids apart to ensure rinsing of the entire eye surface and lids with water. If physician is not available, flush for an additional 15 minutes. Get immediate medical attention.

Overexposure Effects: Direct or prolonged skin or eye contact can cause skin and eye burns. Swallowing liquid can burn mouth and cause nausea, vomiting, diarrhea, abdominal pain and collapse. Can cause allergic skin and respiratory reactions after repetitive exposure. Animal studies on component(s) have shown effects on liver and fetus.

Medical Conditions Aggravated by Exposure: Allergic conditions.

Additional Information: Promptly remove wet contaminated non-impervious clothing. Wash before reuse.

5. FIRE FIGHTING MEASURES

Flash Point: >200°F (>93°C)

Method Used: Closed Cup

Fire Fighting Extinguishing Media: Carbon dioxide, foam, dry chemical, water spray.

Fire Fighting Equipment: Use self-contained breathing apparatus.

Fire and Explosion Hazards: Decomposition and combustion products may be toxic.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Avoid all personal contact. Take up with absorbent material. Shovel into closable containers. Flush contaminated area with water.

7. HANDLING AND STORAGE

Precautions: Do not get in eyes, on skin or on clothing. Do not breathe vapor, mist or spray. Use only with good ventilation. Promptly remove contaminated non-impervious clothing, wash before reuse. Destroy contaminated leather and absorbent shoes. Wash thoroughly after handling.

Storage Information: Store in tightly closed water impermeable containers to prevent moisture absorption and contamination.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal Protective Equipment: Wear protective equipment to prevent exposure and personal contact.

Skin Protection: Wear impervious gloves.

Respiratory Protection: Organic chemical cartridge respirator, if needed.

Eye Protection: Wear splash-proof chemical goggles.

Engineering Controls: Good general mechanical ventilation. Local exhaust recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Odor:	Amine
Physical State:	Liquid
Solubility in Water:	Miscible
Specific Gravity:	1.07 at 20 °C (68 °F) (H ₂ O = 1)
Boiling Point:	> 200 °C (> 392 °F)
Vapor Density:	Greater Than Air
pH:	~ 11

Percent Volatile: Nil.

10. STABILITY AND REACTIVITY

Stability: Stable

Incompatibility: Strong oxidizing agents, acids, copper and its alloys.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, aldehydes, nitrogen oxides.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral Effects (LD50): (Rat) 2600 mg/kg.

Acute Dermal Toxicity (LD50): (Rat) 2600 mg/kg.

Inhalation Toxicity (LC50): Respiratory irritant.

Sensitization: Sensitizer

Skin Irritation: (Rabbit) Extreme irritation; corrosive.

Eye Irritation: Severe eye irritant.

12. ECOLOGICAL INFORMATION

Additional Information: No ecological information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT:

Proper Shipping Name:	Amines, liquid, corrosive, n.o.s.
Hazard Class:	8
ID Number:	UN 2735
Packing Group:	PG II

15. REGULATORY INFORMATION

US Federal Regulations:

Occupational Safety and Health Act (OSHA): This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under the standard.

Resource Conservation and Recovery Act (RCRA): Not a hazardous waste under RCRA (40 CFR 261).

SARA Title III: Section 304 – CERCLA: Not listed.

SARA Title III: Section 313 Toxic Chemical List (TCL): This product **does not** contain any toxic chemical for routine annual 'Toxic Chemical Release Reporting' under Sec. 313 (40 CFR 372). This information must be included in all MSDS's that are copied and distributed for this material.

CAS Number: 9046-10-0

Chemical Name: 4, Poly(oxy(methyl-1, 2-ethanediyl)), alpha-(2-aminomethylethyl)omega-(2-aminomethylethoxy)-.

Concentration: 40%

TSCA Section 8(b) – Inventory Status: Chemical components listed on TSCA Inventory.

TSCA Section 12(b) – Export Notification: This product does not contains chemical(s) which is (are) regulated by TSCA 12(b) Regulation and it is required that proper export notification shall be sent EPA prior to shipping out of the United States of America.

CAS Number: 9046-10-0

Chemical Name: 1, Poly(oxy(methyl-1, 2-ethanediyl)), alpha-(2-aminomethylethyl)omega-(2-aminomethylethoxy)-

International Regulations:

Canadian Inventory Status: All components included in the Domestic Substances List (DSL).

State Regulations:

New Jersey Right-to-Know: The following is required composition information:

Generic Name: Modified Aliphatic Amine
NJ Registry Number: NOT LISTED

Trade Secret
Chemical Name: Organosiloxane: not listed

CAS Number: 9046-10-0
Chemical Name: Poly(oxy(methyl-1, 2-ethanediyl)), alpha-(2-aminomethylethyl)omega-(2-aminomethylethoxy)-

Pennsylvania Right-to-Know: The Following is required composition information:

Chemical Name: Modified Aliphatic Polyamine
CAS Number: Confidential
Comment: Not on Pennsylvania Hazardous Substance List

Trade Secret
Chemical Name: Organosiloxane: not hazardous

CAS Number: 9046-10-0
Chemical Name: Poly(oxy(methyl-1, 2-ethanediyl)), alpha-(2-aminomethylethyl)omega-(2-aminomethylethoxy)-

16. OTHER INFORMATION

Disclaimer: The following supercedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled or lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.