



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: 4521B

Product type: epoxy hardner

Restriction of use: None identified

Company Address: Adhesives and Chemicals
131 Brown Street
Yatesville, PA 18640

Telephone numbers: 570-654-6735

Transport Emergency phone: Chemtrec 800-424-9300

Medical Emergency phone: Poison Contol Center 1.877.671.4608

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture:

Skin acute toxicity (Category 4)

Skin corrosion/irritation (Category 1B)

Skin sensitisation (Category 1)

Signal Word: Danger

Hazard Statements:

H312: Harmful in contact with skin.

H314: Causes severe skin burns and eye damage.

H317: May cause an allergic skin reaction

H412: Harmful to aquatic life with long lasting effects

Pictograms:



Precautionary Statements:

P273: Avoid release to the environment

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor/physician.

Additional information

Caution! To the best of our knowledge the toxicological properties of this material have not been thoroughly investigated.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	C.A.S. #
1,2-ethanediamine, N,N'-bis(2-aminoethyl)-triethylenetetramine	112-24-3
Fatty acids, C18-unsatd., dimmers, polymers with tall-oil fatty acids and triethylenetetramine polyamide resin	68082-29-1

4. FIRST AID MEASURES**First Aid: Eye**

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an ophthalmologist.

First Aid: Skin

Wash immediately with plenty of water and soap for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothes before reuse. Call a physician.

First Aid: Ingestion

Wash out mouth with water provided person is conscious. Call a physician.

First Aid: Inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Hints for Physician: Treatment

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media

foam, dry extinguishing powder, carbon dioxide (CO₂), water spray jet

Hazards During Fire-Fighting

toxic fumes

Protective Equipment for Fire-Fighting

Wear a self-contained breathing apparatus and chemical protective clothing.

Fire-Fighting/Further Advice

Do not inhale explosion and combustion gases. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Provide adequate ventilation.

Environmental Precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure all waste water is collected and treated via a waste water treatment plant.

Methods for Cleaning or Taking Up

not available

Further Accidental Release Measures

Collect in closed and suitable containers for disposal. Clear contaminated areas thoroughly. Ventilate affected area.

7. HANDLING AND STORAGE

Handling advice

Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid prolonged or repeated exposure. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling.

Storage

store at room temperature

Storage Requirements (SDS)

Keep away from incompatible substances. Store in a cool, dry, well-ventilated area away from incompatible substances

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Hazardous Component	C.A.S. #	ACGIH TWA/ppm	ACGIH STEL/ppm	OSHA TWA/ppm
1,2-ethanediamine, N,N'-bis(2-aminoethyl)-triethylenetetramine	112-24-3	N/E	N/E	N/E
Fatty acids, C18-unsatd., dimmers, polymers with tall-oil fatty acids and triethylenetetramine polyamide resin	68082-29-1	N/E	N/E	N/E

Exposure controls**Industrial Hygiene**

Mechanical exhaust required. Safety shower and eye shower.

Personal Protective Equipment**Respiratory Protection**

Wear NIOSH/MSHA or European Standard EN 149 approved respirator.

Hand Protection

Wear compatible chemical-resistant gloves to prevent skin exposure.

Eye Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA.

Body Protection

Wear compatible chemical-resistant gloves and clothing to prevent skin exposure.

Advice on Safe Handling

Wash contaminated clothing before reuse. Wear appropriate protective clothing to prevent exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color: Amber

Odor: Amine

Physical State: Viscous Liquid

Solubility in Water: ~ 0.5 % at 25°C (77 °F)

Vapor Pressure: < 0.01 mmHg at 20°C (68 °F)

Specific Gravity: 0.96 at 25°C (77 °F) (H₂O = 1)

Boiling Point: > 200°C (> 392 °F)

Decomposition Temperature: > 200°C (> 392 °F)

Percent Volatile: Nil.

10. STABILITY AND REACTIVITY

Conditions to Avoid (SDS)

incompatible materials

Substances to Avoid (SDS)

strong oxidizers

Decomposition Products

nitrogen oxides (NO_x), carbon dioxide (CO₂), carbon monoxide

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity

LD₅₀ oral, rabbit, 5,500 mg/kg

Acute Dermal Toxicity

LD₅₀, rabbit, 805 mg/kg

Other Relevant Toxicity Information

We are not aware of any toxicology data.

12. ECOLOGICAL INFORMATION

Biodegradation

no data available

Bioaccumulation

no data available

Distribution in Environment

no data available

13. DISPOSAL CONSIDERATION**Advice on Disposal**

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber; observe all federal, state and local environmental regulations.

Advice on Packaging

not available

14. TRANSPORT INFORMATION

UN No. 2259

Class 8

Class II

Proper shipping name: Resin compounds, N.O.I.

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 that standard.

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

SARA Title III: Section 313 Toxic Chemical List (TCL): This product does not contain any chemicals for routine annual toxic chemical release reporting under Section 313 (40 CFR 372).

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

TSCA Section 12(b) - Export Notification: This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

State Regulations:

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

Chemical Name: 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-, polymer with methyloxirane

Common Name: Propoxylated Triethylenetetramine
CAS Number: 26950-63-0
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-
Common Name: Triethylenetetramine
CAS Number: 112-24-3
Comment: Hazardous Substance

16. OTHER INFORMATION

Updated: 5/1/15

*****SPECIAL COMMENT REGARDING ALL MATERIALS MANUFACTURED*****

All information, recommendations and suggestions appearing herein concerning our products are based upon test data believed to be reliable. However, it is the user's responsibility to determine the safety, toxicity and suitability for use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Adhesives and Chemicals as to the effects or such use, the results to be obtained, or the safety and toxicity of the product nor does Adhesives and Chemicals assume any liability arising out of use, by others, of the product referred to herein. The information herein is not to be considered as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.