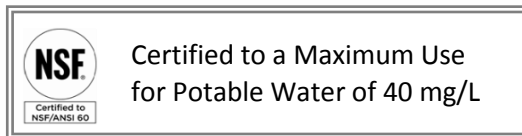


**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** AS-2223  
**Synonyms/ Use:** Cationic polymer  
**Manufacturer/Supplier:** Applied Specialties, Inc.  
 33555 Pin Oak Parkway  
 Avon Lake, OH 44012  
**Customer Information Number:** 440-933-9442



For Chemical Emergency Spills, Leaks, Fire, Exposure or Accident, call Chemtrec: (800) 424-9300 day or night

**2. HAZARDOUS IDENTIFICATION**

**Signal Word:** n/a  
**Pictograms:** n/a

**Hazard Statements:** May be harmful in contact with skin. May be harmful if swallowed.

**Precautionary Statements:**

**Prevention**  
 Do not breathe mist or vapors. (P260)  
 Wash hands thoroughly after handling. (P264)  
 Do not eat, drink or smoke when using this product. (P270)  
 Use only outdoors or in a well-ventilated area. (P271)  
 Wear protective gloves and eye/ face protection. (P280)

**Carcinogenicity:** None of the components in this product at concentrations greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen  
**Reproductive toxicity:** No reproductive effects reported  
**Teratogenicity:** No teratogenic effects reported  
**Genotoxicity:** No mutagenic effects reported  
**Aquatic toxicity:** Not determined

**3. CHEMICAL COMPOSITION**

COMPONENT	CAS NUMBER	WT %
1,2-Ethanediamine, polymer with (chloromethyl) Oxirane and N-methylmethanamine	42751-79-1	22 – 27

Chemical identity of some ingredients may be withheld as confidential as permitted by 29 CFR 1910.1200 and various State right to know laws.



**4. FIRST AID MEASURES**

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- General Advice:** Remove contaminated clothing immediately.
- Eye Contact:** Immediately flush eyes with large amounts of running water for at least 15 minutes, lifting the lower and upper lids. Consult an ophthalmologist if irritation persists.
- Skin Contact:** Wash thoroughly with soap and water to remove any chemical from skin. Get medical attention if irritation persists. Contaminated clothing should be removed and laundered.
- Inhalation:** If difficulties occur after mist or vapors have been inhaled, remove to fresh air and get medical attention immediately.
- Ingestion:** Immediately rinse mouth and get medical attention immediately. Do not induce vomiting unless instructed to do so by a physician. Never give anything by mouth to an unconscious person or if person is having convulsions. If vomiting occurs naturally, have casualty lean forward to reduce the risk of aspiration.
- Note to Physician:** Treat according to symptoms (decontamination, vital functions); no known specific antidote.

**5. FIRE FIGHTING MEASURES**

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- Flash Point and Method:** Not applicable
- Extinguishing Media:** Dry powder, foam, water spray - If water is used, restrict pedestrian and vehicular traffic in areas where a slip hazard may exist. Do not use water jet.
- General Hazard:** Keep upwind. Restrict pedestrian and vehicular traffic. Avoid bodily contact with the material. Containers can build pressure if exposed to heat. Cool containers using water. Caution – Evolution of fumes/ fog can occur during fire.
- Fire Fighting Equipment:** Wear NIOSH/MSHA approved, pressure-demand self-contained breathing apparatus and full protective gear. The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed in accordance with all federal, state and local regulations.

**6. ACCIDENTAL RELEASE MEASURES**

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- Restrict access until clean-up operations are complete. Wear appropriate Personal Protective Equipment and stay upwind. Note that spills pose a slip hazard.
1. Ventilate the spill area.
  2. Spills should be contained, absorbed with inert material, and placed in suitable containers for disposal.
  3. Dispose of material in accordance with to all FEDERAL, STATE AND LOCAL REGULATIONS.
- NOTE: Do not pour product, as supplied, into ground waters, streams, or directly into sewers.

**7. HANDLING AND STORAGE**

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- Handling:** Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Keep away from sources of ignition and heat. Practice good industrial hygiene. Wash after handling and before eating, drinking, or smoking.
- Storage:** Store in unopened original containers. Keep container tightly closed in a cool, dry and well-ventilated secured place.
- Temperature Tolerance:** Avoid extremes.

## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

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<b>Occupational Exposure Limits:</b>	ACGIH TLV:	not determined
<b>Exposure Guidelines:</b>	Work in well ventilated areas. Do not breathe mist or vapors. Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice.	
<b>Engineering Controls:</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to reduce airborne levels below established guidelines. Use local exhaust ventilation in areas where these levels may be exceeded.	
<b>Personal Protection:</b>		
Respirator:	Wear a NIOSH/MSHA approved or equivalent vapor/particulate respirator as necessary.	
Eye Protection:	Tight fitting safety goggles and face shield	
Gloves:	Chemical resistant gloves and check with glove manufacturers' recommendations, consider all work functions when selecting the best glove.	
Clothing:	Impermeable protective clothing as necessary to minimize contact.	
Other:	Eye wash and safety showers should be in immediate work area; practice good industrial hygiene and safety practices.	

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	Clear, colorless to amber liquid
<b>Odor</b>	Mild
<b>Viscosity</b>	Not determined
<b>Freeze Point</b>	~-6°C
<b>Boiling Point</b>	~100°C
<b>Flash Point</b>	Not applicable
<b>Specific Gravity</b>	~1.07 g/mL
<b>Product pH</b>	~6.0
<b>Solubility in Water</b>	Miscible

## 10. STABILITY AND REACTIVITY

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<b>Stability:</b>	The product is stable under normal temperatures and pressures
<b>Hazardous Reactions:</b>	No hazardous reactions when stored and handled according to instructions.
<b>Incompatibilities:</b>	Strong oxidizers, reactive chemicals.
<b>Conditions to avoid:</b>	Avoid extreme temperatures; Avoid all sources of ignition, heat, spark, open flame.
<b>Hazardous Decomposition Products:</b>	Carbon oxides, nitrogen oxides.

## 11. TOXICOLOGICAL INFORMATION

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### Acute Toxicity:

Oral:	LD50	Rat	>2,000 mg/Kg
Irritation/ corrosion:	Eye	Rabbit	non-irritant
	Skin	Rabbit	non-irritant



Aspiration hazard: no aspiration hazard expected.  
Sensitization: This product is not expected to be a sensitizer  
Carcinogenicity: None of the substances in this product are listed as carcinogens by the IARC, NTP, or ACGIH

12. ECOLOGICAL INFORMATION

Ecotoxicity:

LC50 (96hr) Oncorhynchus mykiss Not determined  
EC50 (48hr) Daphnia magna 20 mg/L

Bioaccumulation: Accumulation in organisms is not expected.

13. DISPOSAL CONSIDERATIONS

Product Residues: Prohibition – Do not discharge product, as supplied, to drains, sewers, or ground waters. Disposal – Dispose in accordance with all federal, state, and local regulations. It is the waste generator’s responsibility to determine if a particular waste is hazardous under RCRA

Used Packaging: Dispose of in a licensed facility and in compliance with local, state, and federal regulations. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. TRANSPORT INFORMATION

Proper Shipping Name: Not classified as dangerous goods

Hazard Class: Not regulated

Identification Number: N/A

Packaging Group: N/A

Label Required: None

15. REGULATORY INFORMATION

FEDERAL REGULATIONS:

CERCLA/SUPERFUND (40 CFR 117, Section 302)

Component	CAS Number	Concentration	RQ
No components listed			

SARA EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355)

Component	CAS Number
No components listed	

SARA HAZARD CATEGORIES (40 CFR 370, Sections 311, 312)

[X] Acute [ ] Chronic [ ] Fire [ ] Pressure [ ] Reactive [ ] None

SARA TOXIC SUBSTANCES (40 CFR 372, Section 313)

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the emergency planning and Right – to – know Act of 1986 and of 40CFR 372.

Component	CAS Number
No components listed	



**US TOXIC SUBSTANCES CONTROL ACT/INVENTORY STATUS (TSCA)**

All components are listed

**RCRA STATUS**

It is the waste generator's responsibility to determine if a particular waste is hazardous under RCRA

**NTP, IARC, OSHA, & ACGIH STATUS**

None of the components in this product at concentrations greater than 0.1% are listed

**DOT REPORTABLE QUANTITY (RQ) (49 CFR, Subchapter C, Section 172.101, Appendix A)**

Component	CAS Number	Concentration	RQ
No components listed			

**STATE REGULATIONS:**

**PENNSYLVANIA, NEW JERSEY, and MASSACHUSETTS RIGHT-TO-KNOW INFORMATION**

Component	CAS Number
1,2-Ethanediamine, polymer with (chloromethyl) Oxirane and N-methylmethanamine	42751-79-1

**CALIFORNIA PROPOSITION 65:**

THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER OR REPRODUCTIVE HARM.

**16. OTHER INFORMATION**

**Precautionary Statements for response, storage, and disposal:**

This information is given without any warranty or representation and is presented in good faith and believed to be accurate. We do not assume any legal responsibility for same, nor do we give permission, inducement, or recommendation to practice any patented invention without a license. It is offered solely for your consideration, investigation and verification. Before using any product, read its label carefully and completely.

**Revision 7/ supersedes 7/9/12/ mtl**

Revisions: format, all sections