



# MATERIAL SAFETY DATA SHEET

## AQUANOX® A4512

---

**1. COMPANY NAME AND ADDRESS:**

[www.kyzen.com](http://www.kyzen.com)

Kyzen Corporation  
430 Harding Industrial Drive  
Nashville, TN 37211  
PHONE: 615-831-0888

**(24 HOUR) EMERGENCY PHONE:**  
**CHEMTREC**  
**800-424-9300**

Effective: February 6, 2007  
Supersedes: August 3, 2006

---

**2. INGREDIENTS:**

<u>Hazardous Components</u>	<u>CAS Number</u>	<u>Approximate %</u>
2-amino ethanol	141-43-5	1-15

See Section 8 for exposure limits (if applicable).

---

**3. HAZARDS IDENTIFICATION:**

**EMERGENCY OVERVIEW**

Clear amber liquid with a mild amine odor. Vapors may irritate eyes, skin, and mucous membranes if inhaled or swallowed.

Eyes: Vapors and contact may cause irritation.  
Skin: Skin contact may cause irritation.  
Ingestion: May be harmful if ingested.  
Inhalation: Vapors may be mildly irritating to lungs, nose and throat.

---

**4. FIRST AID:**

Eyes: Immediately flush eyes with plenty of water for 15 minutes. If irritation develops, get medical attention.  
Skin: Remove contaminated clothing and shoes. Wash affected area with plenty of soap and water. Get medical attention. Wash contaminated items before reuse.  
Ingestion: If conscious, give person 1 to 2 glasses of water. Get medical help.  
Inhalation: Remove victim from area of exposure. If unconscious, give oxygen. Give artificial respiration if not breathing. Get medical help.

Medical Conditions Aggravated: Conditions aggravated may include disorders of the skin, respiratory and nervous systems.

---

**5. FIRE AND EXPLOSION HAZARD DATA:**

Flash Point: None to boiling. (TCC)  
Flammability Limits in Air: None established  
Extinguisher Media: Standard methods including dry chemical, carbon dioxide, foam and water fog.  
Special Fire Fighting Procedures: Water should be used to keep fire-exposed containers cool. Prevent runoff from fire control from entering streams, sewers or drinking water supply.  
Combustion Products: Oxides of carbon, ammonia, and nitrogen.

---

**6. ACCIDENTAL RELEASE MEASURES:**

---

Small Spill: Use proper personal protective equipment. Dike area to contain spill. Pick up spill on absorbent, non-combustible material. Place into a chemical waste container. Don't flush into sewers or natural waterways. Wipe area with water to remove last traces.

Large Spill: Contain material as described above. If necessary, call the local fire or police department for immediate emergency assistance.

---

**7. HANDLING AND STORAGE:**

---

Handling: Do not eat, drink or smoke in handling area. Wear proper eye protection. Follow proper handling procedures.

Storage: Keep container tightly closed. Store in cool (60-80°F) ventilated area. Keep separate from strong acids, bases and oxidizers and away from heat, sparks and open flame.

---

**8. EXPOSURE CONTROLS/ PERSONAL PROTECTION:**

---

Exposure Guidelines:

Hazardous Component	Exposure Limits	
	OSHA PEL, ppm	ACGIH TLV, ppm
2-amino ethanol	3	3

Respiratory Protection: Use NIOSH approved organic vapor air purifying respirator.

Ventilation: Use in well-ventilated area with local exhaust.

Protective Gloves: Impervious chemical, etc.

Eye Protection: Glasses, goggles or face shield, etc.

Other Protective Equipment: Eye fountain, safety shower, etc.

Work Hygiene Practices: Do not eat, drink, or smoke when handling industrial materials.

---

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

---

Boiling Point	106°C / 225°F	Specific Gravity	1.05 typical
Vapor Density	Not determined	pH at 100%	9.8-11.0
Solubility in Water	Complete	pH at 10%	9.2-10.4
Volatile Organic Compound (VOC):		Appearance	Clear amber liquid, darkens with age
EPA Method 24:	367.8 g/L	Odor	Mild amine
Vapor Pressure, VOC Components:	0.23 mmHg at 20°C		

---

**10. STABILITY AND REACTIVITY:**

---

Stability: Stable

Hazardous Polymerization: Will not occur

Incompatibility: Strong acids, bases and oxidizers

Hazardous Decomposition: Oxides of carbon, ammonia, nitrogen

Other: Do not add nitrates due to possible formation of nitrosoamines.

---

**11. TOXICOLOGICAL INFORMATION:**

---

Acute Toxicology: No data is available on product as a whole.

Chronic Toxicology: Not established on product as a whole.

Carcinogenicity: Contains no known or suspected carcinogens.

---

**12. ECOLOGICAL INFORMATION:**

---

Environmental Fate and Effects:

Ecotoxicity: Not established.

Mobility: Not established.

Persistence and Degradability: Not established.

Bioaccumulative Potential: Not established.

**13. DISPOSAL INFORMATION:**

Disposal of Material: Conditions of use may cause this material to become a hazardous waste as defined by state or federal law. Use approved treatment, transporters and disposal sites. USEPA guidelines for the classification determination are listed in 40 CFR Parts 261.3.

Empty Containers: Keep containers closed when not in use. Do not reuse empty containers.

**14. TRANSPORTATION:**

Not regulated.

US DOT: 49CFR172.101

Proper Shipping Name: Compounds, Cleaning liquid.  
Non-hazardous, Non-flammable

Hazard Class or Division: None

Identification No.: None

Packing Group: None

LABEL: None

Placard: None

**15. REGULATORY INFORMATION:**

29CFR 1910.1200: 2-amino ethanol (141-43-5)

States Right-to-Know: 2-amino ethanol (141-43-5) CT, FL, IL, MA, NJ, PA, RI  
Tetrahydrofurfuryl alcohol 97-99-4 PA, MA

TSCA Listed: Yes

CERCLA: Not reportable

SARA TITLE III, Section 313: None

California Proposition 65: None

SARA 302: No

SARA 311/312: Health: Acute

Canada: D2B

RoHS Compliant: Yes

**16. OTHER INFORMATION:**

NFPA CODES:	HEALTH: 1	FIRE: 0	REACTIVITY: 0	
HMIS CODES:	HEALTH: 1	FIRE: 0	REACTIVITY: 0	PROTECTION: X

The data contained herein is based on information currently available to Kyzen Corporation and is believed to be factual. As a formulator, blender, and compounder, Kyzen Corporation does not manufacture the raw materials used in this product and correspondingly relies on information provided to Kyzen Corporation from material safety data sheets on the specific raw materials in the construction of this material safety data sheet. Such information is to the best of Kyzen Corporation's knowledge and belief to be accurate and reliable as of the date of this MSDS. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO THE ACCURACY, RELIABILITY, OR COMPLETENESS. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular application. This information is not intended to be all-inclusive as to the manner and conditions of use, handling and storage. Other factors may involve other or additional safety or performance considerations. This data is not to be taken as a warranty or representation of which Kyzen Corporation assumes legal responsibility.  
Copyright 2002 Kyzen Corporation. All rights reserved.