



Material Safety Data Sheet

HAZTECH
SYSTEMS,TM
INC.

NFPA

HMIS

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| Health Hazard | 1 |
| Fire Hazard | 1 |
| Reactivity | 0 |

PPE (See Section 15)



Section 1. Chemical Product and Company Identification

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|------------------|---|---|---|
| Trade Name | Amino Acid Test | Part # | RE2125 |
| Manufacturer | HazTech Systems, Inc. PO Box 929 Mariposa, CA 95338 | CAS # | 107-21-1 |
| | | RTECS | KW2975000 |
| | | TSCA | TSCA 8(b) inventory: Ethylene glycol |
| Synonyms | Ethylene glycol, Antifreeze | CI # | |
| Chemical Formula | HOCH ₂ CH ₂ OH | <div style="border: 1px solid black; padding: 5px;"> In case of emergency contact CHEMTREC (24 hours) at 800-424-9300 HazTech Systems, Inc. 800-337-2497 Spectrum Chemical Mfg. Corp. 310-516-8000 </div> | |
| Supplier | Spectrum Chemical Mfg. Corp. 14422 S. San Pedro St. Gardena, CA 90248 | | |

Section 2. Composition and Information on Ingredients

| Name | CAS # | Exposure Limits | | | % by Weight |
|-----------------|----------|--------------------------|------|---------------------------|-------------|
| | | TWA (mg/m ³) | STEL | CEIL (mg/m ³) | |
| Ethylene glycol | 107-21-1 | | | 100 | 100 |

Toxicological Data on Ingredients
Ethylene glycol:
ORAL (LD50): Acute: 4700 mg/kg [Rat]. 5500 mg/kg [Mouse]. 6610 mg/kg [Guinea pig].
VAPOR (LC50): Acute: >200 mg/m³ 4 hours [Rat].

Section 3. Hazards Identification

Potential Acute Health Effects Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation (lung irritant). Severe over-exposure can result in death.

Potential Chronic Health Effects
CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH.
MUTAGENIC EFFECTS: Non-mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [SUSPECTED]. The substance is toxic to kidneys. The substance may be toxic to blood, lungs, the nervous system, the reproductive system, liver, heart, brain, central nervous system (CNS), pancreas.
Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.



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Section 4. First Aid Measures

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| Eye Contact | Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs. |
| Skin Contact | Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used. |
| Inhalation | If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately. |
| Ingestion | Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband. |

Section 5. Fire and Explosion Data

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| Flammability | May be combustible at high temperature. |
| Auto-Ignition Temperature | 398°C (748.4°F) |
| Flash Point | CLOSED CUP: 111°C (231.8°F). (TAG) OPEN CUP: 115.6°C (240.1°F) (Cleveland). |
| Flammable Limits | LOWER: 3.2% UPPER: 15.3% |
| Products of Combustion | CO, CO ₂ , H ₂ O |
| Fire Hazards in Presence of Various Substances | Slightly flammable to flammable in presence of heat. |
| Explosion Hazards in Presence of Various Substances | Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. |
| Fire Fighting Media and Instructions | SMALL FIRE: Use DRY chemical powder, water, or CO ₂ . |
| Special Remarks on Fire Hazards | Explosive decomposition may occur if combined with strong acids or strong bases and subjected to elevated temperatures. |

Section 6. Accidental Release Measures

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| Small Spill | Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. |
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Section 7. Handling and Storage

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| Precautions | If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Do not breathe gas/fumes/vapor/spray. |
| Storage | Keep in HazCat Unknowns Kit. |

Section 8. Exposure Controls/Personal Protection

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| Engineering Controls | Use in a well ventilated area. |
| Personal Protection | Gloves and goggles. |



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Section 9. Physical and Chemical Properties

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| Physical State and Appearance | Thick liquid | Volatility | Not available |
| Molecular Weight | 62.07 g/mole | Odor Threshold | 0.25 ppm |
| pH (1% Solution in Water) | Not available. | Water/Oil Dist. Coeff. | The product is more soluble in water; log(oil/water) = -1.4 |
| Boiling Point | 197.6°C (387.7°F) | Ionicity (in Water) | Not available |
| Melting Point | -13°C (8.6°F) | Dispersion Properties | See solubility in water. |
| Critical Temperature | Not available | Solubility | Easily soluble in water, methanol, n-octanol, acetone. |
| Specific Gravity | 1.1135 (Water = 1) | Odor | Not available |
| Vapor Pressure | .06 mmHg @ 20 C; .092 mmHg. @ 25 C | Taste | Mild sweet |
| Vapor Density | 2.14 (Air = 1) | Color | Colorless |

Section 10. Stability and Reactivity Data

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| Stability | Product is stable. | Corrosivity | Non-corrosive in presence of glass. |
| Instability Temperature | Not available. | Special Remarks on Corrosivity | Not available. |
| Conditions of Instability | Not available. | Polymerization | Will not polymerize. |
| Incompatibility with Various Substances | Reactive with oxidizing agents, acids, alkalis. | | |

Section 11. Toxicological Information

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| Route of Entry | Absorbed through skin. Eye contact. Ingestion. |
| Toxicity to Animals | Acute oral toxicity (LD50): 4700 mg/kg [Rat]. Acute toxicity of the vapor (LC50): >200 mg/m ³ 4 hours [Rat]. |
| Chronic Effects on Humans | CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH. MUTAGENIC EFFECTS: Non-mutagenic for bacteria and/or yeast. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [SUSPECTED]. Causes damage to the following organs: kidneys. May cause damage to the following organs: blood, lungs, the nervous system, the reproductive system, liver, heart, brain, central nervous system (CNS), pancreas. |
| Other Toxic Effects on Humans | Slightly hazardous in case of skin contact, of ingestion, of inhalation. |
| Special Remarks on Toxicity to Animals | Not available. |
| Special Remarks on Chronic Effects on Humans | Not available. |
| Special Remarks on Other Toxic Effects on Humans | Not available. |

Section 12. Ecological Information

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| Ecotoxicity | Ecotoxicity in water (LC50): 41000 mg/l 96 hours [Trout]. |
| BOD5 and COD | .Not available. |
| Products of Biodegradation | Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. |
| Toxicity of the Products of Biodegradation | The products of degradation are less toxic than the product itself. |
| Special Remarks on the Products of Biodegradation | Not available. |

