

Safety Data Sheet

Section 1: Product & Company Identification

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| Product Name: | Triethanolamine |
| Product #: | T-2737 |
| Synonyms: | 2,2',2''-Nitriloethanol |
| Supplier: | AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego, CA 92131 Tele# + 858-452-9925 |
| Emergency Tele#: | ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585 |

Section 2: Composition / Information on Ingredients

| Component | CAS # | EC # | % Composition |
|-----------------|----------|-----------|---------------|
| Triethanolamine | 102-71-6 | 203-049-8 | ≥99.0 |

Section 3: Hazards Identification

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| Symbols | N/A |
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HMIS Rating

| Health Hazard | Chronic Health Hazard | Flammability | Physical Hazard |
|---------------|-----------------------|--------------|-----------------|
| 0 | * | 1 | 0 |

NFPA Rating

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

Section 4: First Aid Measures

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| General Overview: | Consult a doctor and show this safety data sheet. |
| Inhalation: | Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor. |
| Skin: | Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor. |
| Eyes: | Flush with copious amounts of water for at least 15 minutes. Consult a doctor. |

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| Ingestion: | Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor. |
| | See section 11 for more detailed information on health effects & symptoms. |

SECTION 5: Fire Fighting Measures

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| Flammability of the product: | No data available |
| Extinguishing Media: | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide |
| Hazardous thermal (de)composition products: | Carbon oxides, nitrogen oxides (NO _x) |
| Special Fire Fighting Procedures: | Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus. |
| Flash Point: | 190°C |





Section 6: Accidental Release Measures

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| Personal Precautions: | Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas. |
| Environmental Precautions: | Do not let product enter drains. |
| Methods for Clean-up: | Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS. |

SECTION 7: Handling & Storage

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| Storage: | Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Hygroscopic: Keep in a dry place. Recommended storage temperature: room temperature |
| Handling: | Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure. |

SECTION 8: Exposure controls / Personal Protection

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| Respiratory Protection: |  <p>Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.</p> |
| Skin and Body: |   <p>Wear appropriate protective clothing and gloves. Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.</p> |
| Eyes: |  <p>Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).</p> |
| Ventilation/Engineering Measures: | <p>Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.</p> |
| Hygiene: | <p>Follow standard good industrial hygiene.</p> |
| Other: | <p>Components with workplace control parameters:</p> <ul style="list-style-type: none"> • Component: Triethanolamine • ACGIH TLV: TWA: 5 mg/m³ • Quebec: TWA: 5 mg/m³ • Ontario TWAEV: TWA: 0.5 ppm; TWA: 3.1 mg/m³ |

SECTION 9: Physical and Chemical Properties

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| Appearance & Odor: | Slightly yellow liquid |
| Formula | C ₆ H ₁₅ NO ₃ |
| Molecular Wt. | 149.2 |
| Melting Pt. | 18-22°C |
| Boiling Pt. | 360°C |
| Density: | 1.12 g/cm ³ |
| Vapor Pressure: | <0.01 hPa |
| Evaporation Rate: | No data available |
| Vapor Density: | No data available |
| Solubility: | Water |
| Flash Point: | 190°C |
| Autoignition Temp: | No data available |

SECTION 10: Stability and Reactivity

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| Stability: | Stable under recommended storage conditions. |
| Hazardous decomposition products: | When heated to decomposition, emits dangerous fumes. Cox, NOx. |
| Materials to Avoid: | Metals, strong oxidizers, halogenated compounds, acids |
| Conditions to avoid: | Overheating, moisture, air exposure to moisture, light |

SECTION 11: Toxicological Information

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| RTECS#: | N/A |
| ACUTE Toxicity: | LD50 Oral = 5,530 mg/kg (rat) LD50 Dermal = >16 mL/kg (rat), >2,000 mg.kg (rabbit) LD50 Inhalation = >22.5 g/kg (rabbit) |
| CHRONIC Toxicity: | N/A |
| Chronic Exposure: Carcinogen: Mutagen: Teratogen: Reproductive: | IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC. AGGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, potential human carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated human carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as known or potential human carcinogen by OSHA. |

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| | EPA: No classification on carcinogenic data is available from EPA |
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SECTION 12: Ecological Information

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| Ecotoxicity: | LC50 - Daphnia magna: 13-90 mg/l (24 h) LC50 - 450 - 1,000 mg/l (96 h) |
| Mobility: | No data available |
| Persistence and degradability: | No data available |
| Bioaccumulative potential: | No data available |
| Other adverse effects: | No data available |
| Corrosivity Characteristic: | No data available |
| General Notes: | No data available |

SECTION 13: Disposal Considerations

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| Residue Waste or Unused product: | Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. |
| Contaminated Packaging: | Dispose of container and unused contents in accordance with federal, state and local requirements. |

SECTION 14: Transportation Information

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| UN ID#: | N/A |
| ADR / RID (LAND): | Not regulated |
| DOT regulations: | Not regulated |
| IMDG/IMO (SEA): | Not regulated |
| IATA/DGR (AIR): | Not regulated |
| Special Provisions: | N/A |

SECTION 15: Regulatory Information

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| Health Phrases: | Not hazardous |
| Risk Phrases: | P101 If medical advice is needed, have product container or label at hand P102 Keep out of reach of children. P501 Dispose of contents/ container to an approved waste disposal plant. |
| Safety Phrases: | N/A |
| EU Regulations: | N/A |
| US Regulations: | TSCA: Listed California Proposition 65: No products were found |

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| | <p>Massachusetts State Right to Know: Listed New Jersey State Right to Know: Listed Pennsylvania State Right to Know: Listed</p> |
| U.S. Federal Regulations: | <p>SARA 302/304 emergency planning and notification: No products were found. SARA 311/312 MSDS distribution-chemical inventory-hazard identification: Chronic Health Hazard SARA 313 toxic chemicals notification and release reporting: No products were found.</p> <p>Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean Air Act (CAA) 112 accidental release prevention: No products were found. Clean Air Act (CAA) 112 regulated flammable substances: No products were found. Clean Air Act (CAA) 112 regulated toxic substances: No products were found.</p> <p>OSHA:</p> |
| WHMIS (Canada): | DSL: Listed |

SECTION 16: Other Information

LIABILITY STATEMENT: *The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. AG Scientific shall not be held liable for any damages resulting from handling or from contact with the above product. AG Scientific products are for research purposes only. Not for human use or consumption.*