



Material Safety Data Sheet

| NFPA | HMIS | Personal Protective Equipment |
|------|--|-------------------------------|
| | Health Hazard 2 Fire Hazard 1 Reactivity 0 | |
| | | See Section 15. |

| Section 1. Chemical Product and Company Identification | | | Page Number: 1 |
|--|---|-----------------------|---|
| Common Name/ Trade Name | Tetraethylammonium chloride | Catalog Number(s). | T1017 |
| | | CAS# | 56-34-8 |
| Manufacturer | SPECTRUM LABORATORY PRODUCTS INC. | RTECS | BS6125000 |
| | 14422 S. SAN PEDRO STREET GARDENA, CA 90248 | TSCA | TSCA 8(b) inventory: Tetraethylammonium chloride |
| Commercial Name(s) | TEAC; Tea chloride | CI# | Not available. |
| Synonym | N,N,N-Triethylethanaminium chloride | - | |
| Chemical Name | Ammonium, tetraethyl-, chloride | | F <u>EMERGENC Y</u> 2 (24hr) 800-424-9300 |
| Chemical Family | Not available. | CALL (310) 5 | 16-8000 |
| Chemical Formula | C8H20CIN | | |
| Supplier | SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248 | | |

| Section 2. Composition and Information on Ingredients | | | | | |
|---|---------|--------------------------|---------------------------|---------------------------|-------------|
| | | | Exposure Limits | | |
| Name | CAS # | TWA (mg/m ³) | STEL (mg/m ³) | CEIL (mg/m ³) | % by Weight |
| 1) Tetraethylammonium chloride | 56-34-8 | | | | 100 |
| Toxicological Data Tetraethylammonium chloride | | | | | |

Toxicological Data on Ingredients

ORAL (LD50): Acute: 2630 mg/kg [Rat]. 833 mg/kg [Mouse].

| Section 3. Hazards Identification | | |
|-------------------------------------|---|--|
| Potential Acute Health Effects | Hazardous in case of skin contact (irritant), of eye contact (irritant). Slightly hazardous in case of ingestion, of inhalation. | |
| Potential Chronic Health Effects | CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition. | |

| Section 4. First Aid | Measures |
|----------------------|--|
| 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. |
| Skin Contact | In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention. |
| Serious Skin Contact | Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention. |
| Inhalation | If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. |
| Serious Inhalation | Not available. |
| Ingestion | Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear. |
| Serious Ingestion | Not available. |

| Section 5. Fire and Explosion Data | | | |
|---|--|--|--|
| Flammability of the Product | May be combustible at high temperature. | | |
| Auto-Ignition Temperature | Not available. | | |
| Flash Points | Not available. | | |
| Flammable Limits | Not available. | | |
| Products of Combustion | These products are carbon oxides (CO, CO2), halogenated compounds. | | |
| 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. LARGE FIRE: Use water spray, fog or foam. Do not use water jet. | | |
| Special Remarks on Fire Hazards | Not available. | | |
| Special Remarks on Explosion Hazards | Not available. | | |
| Section 6. Accidental F | Section 6. Accidental Release Measures | | |
| Small Spill | Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements. | | |
| Large Spill | Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. | | |

Section 7. Handling and Storage

| Precautions | Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents. |
|-------------|---|
| Storage | Keep container tightly closed. Keep container in a cool, well-ventilated area. |

Section 8. Exposure Controls/Personal Protection

| Engineering Controls | Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. | |
|---|---|--|
| Personal Protection | Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. | |
| Personal Protection in Case of a Large Spill | Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. | |
| Exposure Limits | Not available. | |

Section 9. Physical and Chemical Properties

| Physical state and appearance | Solid. (Deliquescent solid.) | Odor | Not available. |
|-------------------------------|--|-------|----------------|
| Molecular Weight | 165.71 g/mole | Taste | Not available. |
| pH (1% soln/water) | Not available. | Color | White. |
| Boiling Point | Not available. | | |
| Melting Point | 39°C (102.2°F) | | |
| Critical Temperature | Not available. | | |
| Specific Gravity | 1.08 (Water = 1) | | |
| Vapor Pressure | Not applicable. | | |
| Vapor Density | Not available. | | |
| Volatility | Not available. | | |
| Odor Threshold | Not available. | | |
| Water/Oil Dist. Coeff. | Not available. | | |
| Ionicity (in Water) | Not available. | | |
| Dispersion Properties | See solubility in water, acetone. | | |
| Solubility | Easily soluble in cold water, acetone. Freely soluble in alcohol, chloroform. Slightly soluble in Benzene. Solubility in Water: 1410 g/L. | | |

Tetraethylammonium chloride

| Section 10. Stability a | nd Reactivity Data |
|---|--|
| Stability | The product is stable. |
| Instability Temperature | Not available. |
| Conditions of Instability | Excess heat, incompatible materials |
| Incompatibility with various substances | Reactive with oxidizing agents. |
| Corrosivity | Non-corrosive in presence of glass. |
| Special Remarks on Reactivity | Not available. |
| Special Remarks on Corrosivity | Not available. |
| Polymerization | Will not occur. |
| Section 11. Toxicologi | ical Information |
| Routes of Entry | Inhalation. Ingestion. |
| Toxicity to Animals | Acute oral toxicity (LD50): 833 mg/kg [Mouæ]. |
| Chronic Effects on Humans | Not available. |
| Other Toxic Effects on Humans | Hazardous in case of skin contact (irritant). Slightly hazardous in case 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 | Acute Potential Health Effects Skin: Causes skin irritation. Eyes: Causes eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: May cause nausea, vomiting, diarrhea. May affect behavior/central nervous system/peripheral nervous system (paresthesis, flaccid paralysis, change in motor activity, muscle weakness, somnolence, tremor, ataxia), respiration (respiratory depression). |

Section 12. Ecological Information

| Ecotoxicity | Not available. |
|--|---|
| 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 more toxic than the product itself. |
| Special Remarks on the Products of Biodegradation | Not available. |

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Section 13. Disposal Considerations

Waste Disposal

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

| Section 14. Transpo | ort Information |
|-------------------------------------|--|
| DOTClassification | Not a DOT controlled material (United States). |
| Identification | Not applicable. |
| Special Provisions for Transport | Not applicable. |
| DOT (Pictograms) | |

| Section 15. Other Regulatory Information and Pictograms | | | | | | |
|---|--|--|---|--|--|--|
| Federal and State Regulations | TSCA 8(b) inventory: Tetraethylammonium chloride | | | | | |
| California Proposition 65 Warnings | California prop. 65. This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found. California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found. | | | | | |
| Other Regulations | EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 200-267-5). Canada: Listed on Canadian Domestic Substance List (DSL). China: Listed on National Inventory. Japan: Listed on National Inventory (ENCS). Korea: Not listed on National Inventory (KECI). Philippines: Listed on National Inventory (PICCS). Australia: Listed on AICS. | | | | | |
| Other Classifications | WHMIS (Canada) DSCL (EEC) | Not controlled under WHMIS (Canada). R36/38- Irritating to eyes and skin. | S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28- After contact with skin, wash immediately with plenty of water. S37/39- Wear suitable gloves and eye/face protection. | | | |
| HMIS (U.S.A.) | Health Hazard Fire Hazard Reactivity Personal Protection | 2 National Fire Protection Association (US.A.) 0 E | Health Flammability Beactivity Specific hazard | | | |
| WHMIS (Canada) (Pictograms) | | | | | | |
| Continued on Next | Page | | | | | |

| Tetraethylammoni | um chloride | | | Page Number: 6 | |
|--------------------------------------|-------------------------------|--|---|--|--|
| DSCL (Europe) (Pictograms) | × | | | | |
| TDG (Canada) (Pictograms) | \bigotimes | | | | |
| ADR (Europe) (Pictograms) | \bigotimes | | | | |
| Protective Equipment | | Gloves | | | |
| | | Lab coat. | | | |
| | | Dust respirator. Be sur approved/certified resp | e to uœ an irator or equivalent. | | |
| | | Splash goggles. | | | |
| | | | | | |
| | | | | | |
| Section 16. Other Information | | | | | |
| MSDS Code T3249 | | | | | |
| References Not available. | | | | | |
| Other Special N Considerations | ot available. | | | | |
| Validated by Sonia Owen on 2/3/2009. | | | Verified by Sonia Owen. Printed 3/13/2009. | | |
| CALL (310) 516-8000 | | | | | |
| deteriorates, or becomes contaminat | ed, it may pose hazards not n | nentioned in this MSDS. It shall b | e the user's responsibility to develop proper n | l as packaged. If this product is combined with other materials, nethods of handling and personal protection based on the actual e completeness or accuracy of the information contained herein. | |