## Section 1: Identification

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|---|---|---|
| **Common Name/Trade Name** | ALUMINUM CHLORIDE HEXAHYDRATE USP | |
| **Supplier Information** | Letco Medical<br>1316 Commerce Drive NW<br>Decatur, AL 35601<br>1 (800) 239-5288<br>+1 (734) 843-4693 | **IN CASE OF EMERGENCY:**<br>Chemtrec<br>1 (800) 424-9300 **(24 hours)** |
| **Product Synonym(s)** | Aluminum chloride | |
| **Relevant Use(s) of Product** | Manufacture or Compounding of Substances | |

## Section 2: Hazards Identification

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|---|---|---|
| **Classification of Substance or Mixture** | Skin irritation (Category 2), Eye irritation (Category 2A), Specific target organ toxicity - single exposure (Category 3), Respiratory system, Acute aquatic toxicity (Category 3), Chronic aquatic toxicity (Category 3) | |
| **Signal Word** | Warning | |
| **Hazard Statement(s)** | H315<br>H319<br>H335<br>H412 | Causes skin irritation<br>Causes serious eye irritation<br>May cause respiratory irritation<br>Harmful to aquatic life with long lasting effects |
| **Pictogram(s)** |  | |
| **Precautionary Statement(s)** | P261<br>P264<br>P271<br>P273<br>P280<br>P302+P352<br>P304+P340<br>P305+P351+P338<br>P312<br>P332+P313<br>P337+P313<br>P362<br>P403+P233<br>P405<br>P501 | Avoid breathing dust/fume/gas/mist/vapours/spray.<br>Wash hands thoroughly after handling.<br>Use only outdoors or in a well-ventilated area.<br>Avoid release to the environment.<br>Wear protective gloves/protective clothing/eye protection/face protection.<br>IF ON SKIN Wash with soap and water.<br>IF INHALED Remove victim to fresh air and keep at rest in a position comfortable for breathing.<br>IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. continue rinsing.<br>Call a POISON CENTER or doctor/physician if you feel unwell.<br>If skin irritation occurs Get medical advice/attention.<br>If eye irritation persists Get medical advice/attention.<br>Take off contaminated clothing and wash before reuse.<br>Store in a well ventilated place. Keep container tightly closed.<br>Store locked up.<br>Dispose of contents/container to an approved waste disposal plant. |
| **Hazards Not Otherwise Classified** | No data available | |
| **Ingredient(s) with Unknown Toxicity** | No data Available | |

## Section 3: Composition/Information on Ingredients

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|---|---|
| **Chemical Name** | Aluminum chloride hexahydrate |
| **Common Name** | Aluminum chloride hexahydrate |
| **CAS Number** | 7784-13-6 |
| **Impurities and/or Stabilizing Additives** | No data available |

## Section 4: First Aid Measures

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| **General Advice** | Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. |
| **If Inhaled** | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| **In Case of Skin Contact** | Wash off with soap and plenty of water. Consult a physician. |
| **In Case of Eye Contact** | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| **If Swallowed** | Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |
| **Most Important Symptoms and Effects** | Cough, Shortness of breath, Headache, Nausea, Vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |

## Section 5: Fire Fighting Measures

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| **Suitable Extinguishing Media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Special Hazards Arising From the Substance/Mixture** | Hydrogen chloride gas, Aluminum oxide. |
| **Special PPE and/or Precautions for Firefighters** | Wear self contained breathing apparatus for fire fighting if necessary. |

## Section 6: Accidental Release Measures

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| **Personal Precautions, Protective Equipment and Emergency Procedures** | Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. |
| **Methods and Materials Used for Containment** | Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. |
| **Cleanup Procedures** | Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. |

## Section 7: Handling and Storage

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| **Precautions for Safe Handling** | Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. |
| **Conditions for Safe Storage** | Keep container tightly closed in a dry well-ventilated place. Caution: the anhydrous form of this material has been reported to have the following hazards associated with it. Prolonged storage of anhydrous aluminum chloride in closed containers has resulted to spontaneous decomposition and occasional explosion upon opening the container probably due to the diffusion of moisture into the container with resulting pressure build-up due to liberated hydrogen chloride gas. When heated in sealed tube, high internal pressure may be generated due to not only its vapor pressure and pressure of desorbed hydrogen chloride, but also by the near doubling in volume which occurs when the material melts to the monomer. Mixtures of nitrobenzene and aluminum chloride are thermally unstable and may lead to explosive decomposition due to a multi-step decomposition reaction occurring above 90°C, which self-accelerates with high exothermicity producing azo-and azoxypolymers. Violent exothermic reactions can occur upon aluminum chloride contacting: alkenes, a mixture of benzoyl chloride and naphthalene, a mixture of aniline and ethyleneimine, ethylene oxide, a mixture of sodium peroxide and aluminum. Aluminum chloride reacts explosively with: oxygen difluoride, phenyl azide, perchloryl benzene or sodium borohydride. Moisture sensitive. |

## Section 8: Exposure Controls/Personal Protection

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| **Components with Workplace Control Parameters** | Components: Aluminum chloride hexahydrate CAS No. 7784-13-6. Value: TWA. Control parameters: 2mg/m3. Basis: USA. OSHA-TABLE Z-1 Limits for Air Contaminants 1910.1000. Value: TWA. Control parameters: 2mg/m3. Basis: USA. NIOSH Recommended Exposure Limits. |
| **Appropriate Engineering Controls** | Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. |
| **PPE - Eye/Face Protection** | Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). |
| **PPE - Skin Protection** | Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. |
| **PPE - Body Protection** | Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. |
| **PPE - Respiratory Protection** | For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). |

## Section 9: Physical and Chemical Properties

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| **Appearance** | Form: Crystalline Colour: Colourless |
| **Upper/Lower Flammability or Explosive Limits** | No data available |
| **Odor** | No data available |
| **Vapor Pressure** | 1 hPa (1 mmHg) at 100 °C (212 °F) |
| **Odor Threshold** | No data available |
| **Vapor Density** | No data available |
| **pH** | 2.5 - 3.5 at 20 °C (68 °F) |
| **Relative Density** | 2.398 g/cm3 |
| **Melting Point/Freezing Point** | Melting point/range: 100 °C (212 °F) |
| **Solubility** | No data available |
| **Initial Boiling Point and Boiling Range** | No data available |
| **Flash Point** | No data available |
| **Evaporation Rate** | No data available |
| **Flammability (Solid, Gas)** | No data available |
| **Partition Coefficient** | No data available |
| **Auto-Ignition Temperature** | No data available |
| **Decomposition Temperature** | No data available |
| **Viscosity** | No data available |

## Section 10: Stability and Reactivity

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|---|---|
| **Reactivity** | No data available |
| **Chemical Stability** | May decompose on exposure to moist air or water. Stable under recommended storage conditions. |
| **Possibility of Hazardous Reactions** | No data available |
| **Conditions to Avoid** | No data available |
| **Incompatible Materials** | Strong acids |
| **Hazardous Decomposition Products** | Other decomposition products- No data available |

## Section 11: Toxicological Information

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| **Acute Toxicity - LD50 Oral** | LD50 Oral - rat - 3,311 mg/kg |
| **Acute Toxicity - Inhalation** | No data available |
| **Acute Toxicity - Dermal** | No data available |
| **Acute Toxicity - Eye** | No data available |
| **Skin Corrosion/Irritation** | No data available |
| **Serious Eye Damage/Irritation** | No data available |
| **Respiratory or Skin Sensitazation** | No data available |
| **Germ Cell Mutagenicity** | Mammal, lymphocyte, DNA Damage |
| **Carcinogenicity 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. |
| **Carcinogenicity ACGIH** | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. |
| **Carcinogenicity NTP** | No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |
| **Carcinogenicity OSHA** | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |
| **Reproductive Toxicity** | Developmental Toxicity-mouse-Intravenous. Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Other developmental abnormalities. |
| **Specific Target Organ Toxicity - Single Exposure** | Inhalation-May cause respiratory irritation |
| **Specific Targer Organ Toxicity - Repeated Exposure** | No data available |
| **Aspiration Hazard** | No data available |

## Section 12: Ecological Information

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|---|---|
| **Toxicity** | Toxicity to fish LC50 - other fish 27.1 mg/l-96 h. Toxicity to daphnia and other aquatic invertebrates EC50-Daphnia magna (Water flea)-27.3 mg/l-48 h. |
| **Persistence and Degradability** | No data available |
| **Bio-accumulative Potential** | No data available |
| **Mobility in Soil** | No data available |
| **Other Adverse Effects** | An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life. May be harmful to aquatic organisms due to the shift of pH. Avoid release to the environment. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects. |

## Section 13: Disposal Considerations

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| **Waste Treatment Methods Product** | Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. |
| **Waste Treatment Methods Packaging** | Dispose of as unused product. |
| **Special Precautions Landfill or Incinerations** | No data available |
| **Other Information** | No data available |

## Section 14: Transport Information

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|---|---|
| **UN Number** | Not dangerous goods |
| **UN Proper Shipping Name** | N/A |
| **Transport Hazard Class(es)** | N/A |
| **Packaging Group** | N/A |
| **Environmental Hazards** | N/A |

## Section 15: Regulatory Information

SARA 302 Components: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. SARA 311/312 Hazards: Acute Health Hazard. Massachusetts Right To Know Components: No components are subject to the Massachusetts Right To Know Act. Pennsylvania Right To Know Components: Aluminum chloride hexahydrate CAS No. 7784-13-6 Revision Date 1989-08-11. New Jersey Right To Know Components: Aluminum chloride hexahydrate CAS No. 7784-13-6 Revision Date 1989-08-11. California Prop. 65 Components: This product does not contain any chemicals know to State of California to cause cancer, birth defects, or any other reproductive harm.

## Section 16: Other Information

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|---|---|
| **Prepared By** | Scarlotte Smith |
| **Revision Date** | 05/19/2015 13:55 |

**Disclaimer**