



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

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(716) 226-6177

MSDS No. AA 250
Effective Date January 22, 1999

SECTION V HEALTH HAZARD DATA

AA 250

Threshold Limited Value None established (ACGIH 1992-93).

Effects of Overexposure
INHALATION: As other mild organic acids, may cause symptoms of respiratory irritation. **INGESTION:** Published literature indicates low hazard. **EYES:** May cause irritation. Exercise appropriate procedures to minimize potential hazards.

Emergency and First Aid Procedures
EYES: Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Flush thoroughly with water, then wash with mild soap and water. **INGESTION:** If swallowed, if conscious, give one or two glasses of water to drink and call a physician. Never give anything by mouth to an unconscious person. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI REACTIVITY DATA

| | | | | |
|------------------|-----------------|---|----------------------------|---------------------------------|
| Stability | Unstable | | Conditions to Avoid | Excessive temperature and heat. |
| | Stable | X | | |

Incompatibility (Materials to Avoid) Strong oxidizers.

Hazardous Decomposition Products Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide and NO_x and NH₃.

| | | | |
|---------------------------------|----------------------------|-----------------------|-----------------|
| Hazardous Polymerization | Conditions to Avoid | | Not applicable. |
| | May Occur | Will Not Occur | |
| | | X | |

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled Sweep up and place in a suitable container for proper disposal. Flush area with soap and water.

Waste Disposal Method Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in accordance with federal, state and local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None needed in normal laboratory handling. If dusty conditions prevail, work in a fume hood or wear a NIOSH/MSHA-approved dust mask.

| | | | | |
|--------------------|-----------------------------|---------------------|----------------|------------|
| Ventilation | Local Exhaust | Recommended. | Special | No. |
| | Mechanical (General) | Recommended. | Other | No. |

Protective Gloves Rubber if sensitive to irritation. **Eye Protection** Chemical safety glasses.

Other Protective Equipment Goggles, lab coat, eye wash station and proper gloves.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Store in a cool, dry place away from fire hazards. Wash thoroughly after handling.
Keep container tightly closed when not in use.

Other Precautions Read label on container before using. Do not wear contact lenses when working with chemicals.

Avoid contact with eyes.
Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

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|-----------------------|---------------------|---------------------------------|---------------------------------------|
| Revision No. 4 | Date 1/22/99 | Approved Michael Raszeja | Chemical Safety Coordinator MR |
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. * Hazardous Materials Industrial Standards. Printed on recycled paper.

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

| | | |
|--------------------------|---|--|
| Product | AMMONIUM CITRATE, DIBASIC | CHEMTREC 800-424-9300 Day 716-226-6177 NFPA HAZARD RATING LEAST SLIGHT MODERATE HIGH EXTREME 0 1 2 3 4 HMIS * HEALTH FIRE REACTIVITY 1 1 1 |
| Chemical Synonyms | Diammonium Citrate | |
| Formula | (NH ₄) ₂ HC ₆ H ₅ O ₇ | |
| Unit Size | up to 2.5 Kg. | |
| C.A.S. No. | 3012-65-5 | |

SECTION II INGREDIENTS OF MIXTURES

| Principal Component(s) | % | TLV Units |
|---------------------------|------|-------------------|
| Ammonium Citrate, Dibasic | 100% | None established. |

CAUTION! MAY CAUSE EYE IRRITATION.

SECTION III PHYSICAL DATA

| | | | |
|-------------------------------|---|--|--------------------------|
| Melting Point (°F) | Decomposes. | Specific Gravity (H₂O = 1) | 1.48 at 20°C |
| Boiling Point (°F) | Decomposes. | Percent Volatile by Volume (%) | Non-volatile (NA). |
| Vapor Pressure (mm Hg) | Negligible as solid. | Evaporation Rate | (=1) Non-volatile (NA). |
| Vapor Density (Air=1) | Data not listed. | | |
| Solubility in Water | 1 gram per 100 mL. at 0°C | | |
| Appearance & Odor | White, translucent, granular, crystalline material; with a slight ammonia-like odor and a saline taste. | | |

SECTION IV FIRE AND EXPLOSION HAZARD DATA

| | | | | | |
|----------------------------------|-----------------|--|-----|--------------|--------------|
| Flash Point (Method Used) | Not applicable. | Flammable Limits in Air % by Volume | N/A | Lower | Upper |
|----------------------------------|-----------------|--|-----|--------------|--------------|

Extinguisher Media Water spray; carbon dioxide (CO₂); dry chemical.

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may produce hazardous decomposition products (ammonia 15%); can react vigorously with oxidizing materials.

D.O.T. **NON-REGULATED.**

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20