



GARDENA, CA
NEW BRUNSWICK, NJ

Material Safety Data Sheet

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|---------------|---|-------------------------------|---|-------------|---|------------|---|------------------------|
| NFPA | HMIS | Personal Protective Equipment | | | | | | |
| | <table border="1"> <tr> <td>Health Hazard</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Fire Hazard</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Reactivity</td> <td style="text-align: center;">0</td> </tr> </table> | Health Hazard | 2 | Fire Hazard | 0 | Reactivity | 0 | <p>See Section 15.</p> |
| Health Hazard | 2 | | | | | | | |
| Fire Hazard | 0 | | | | | | | |
| Reactivity | 0 | | | | | | | |

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| Section 1. Chemical Product and Company Identification | | <i>Page Number: 1</i> |
| Common Name/ Trade Name | Ammonium oxalate monohydrate | Catalog Number(s). YY1060, A1220, A1221 |
| Manufacturer | SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248 | CAS# 6009-70-7; 113-38-8 (anhydrous) |
| Commercial Name(s) | Not available. | RTECS RO2750000 |
| Synonym | Ethanedioic acid diammonium salt, monohydrate | TSCA TSCA 8(b) inventory: No products were found. Ammonium Oxalate anhydrous CAS no. 1113-38-8 is listed on the TSCA inventory. Ammonium Oxalate monohydrate is not. |
| Chemical Name | Oxalic acid diammonium salt, monohydrate | CI# Not available. |
| Chemical Family | Not available. | <u>IN CASE OF EMERGENCY</u> <u>CHEMTREC (24hr) 800-424-9300</u> CALL (310) 516-8000 |
| Chemical Formula | (COONH ₄) ₂ .H ₂ O | |
| Supplier | SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248 | |

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|--|--|-------------------------------|--------------------------------|--------------------------------|--------------------|
| Section 2. Composition and Information on Ingredients | | | | | |
| | | <i>Exposure Limits</i> | | | |
| Name | CAS # | TWA (mg/m³) | STEL (mg/m³) | CEIL (mg/m³) | % by Weight |
| 1) Ammonium oxalate monohydrate | 6009-70-7; 113-38-8 (anhydrous) | | | | 100 |
| Toxicological Data on Ingredients | Ammonium oxalate monohydrate LD50: Not available. LC50: Not available. | | | | |

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Section 3. Hazards Identification

Potential Acute Health Effects Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant).

Potential Chronic Health Effects **CARCINOGENIC EFFECTS:** Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
 The substance may be toxic to kidneys, lungs, mucous membranes, skin, eyes.
 Repeated or prolonged exposure to the substance can produce target organs damage.

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 immediate 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. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion Not available.

Section 5. Fire and Explosion Data

Flammability of the Product Non-flammable.

Auto-Ignition Temperature Not applicable.

Flash Points Not applicable.

Flammable Limits Not applicable.

Products of Combustion Not available.

Fire Hazards in Presence of Various Substances Not applicable.

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 Not applicable.

Special Remarks on Fire Hazards When heated to decomposition it emits toxic fumes of oxides of nitrogen

Special Remarks on Explosion Hazards Not available.

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Section 6. Accidental Release Measures

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| 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

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| Precautions | Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. 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, acids. |
| Storage | Keep container tightly closed. Keep container in a cool, well-ventilated area. |

Section 8. Exposure Controls/Personal Protection

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| 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

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|--------------------------------------|---|--------------|----------------|
| Physical state and appearance | Solid. (Crystals solid.) | Odor | Odorless. |
| Molecular Weight | 142.11 g/mole | Taste | Not available. |
| pH (1% soln/water) | Not available. | Color | White. |
| Boiling Point | Not available. | | |
| Melting Point | Decomposition temperature: 70°C (158°F) | | |
| Critical Temperature | Not available. | | |
| Specific Gravity | 1.5 (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. | | |
| Solubility | Soluble in hot water. Partially soluble in cold water. Insoluble in ammonia. Slightly soluble in alcohol. Solubility in Water: 1 g/20 ml water at room temperature; 2.54 g/ 100 ml water @ 0 deg. C.; 11.8 g/100 ml water @ 50 deg. C.; 1 g/2.6 ml boiling water. | | |

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Section 10. Stability and Reactivity Data

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| Stability | The product is stable. |
| Instability Temperature | Not available. |
| Conditions of Instability | Incompatible materials, dust generation |
| Incompatibility with various substances | Reactive with oxidizing agents, acids. |
| Corrosivity | Non-corrosive in presence of glass. |
| Special Remarks on Reactivity | Incompatible with sodium hypochlorite + ammonium acetate. |
| Special Remarks on Corrosivity | Oxalates slowly corrode steel |
| Polymerization | Will not occur. |

Section 11. Toxicological Information

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| Routes of Entry | Inhalation. Ingestion. |
| Toxicity to Animals | LD50: Not available. LC50: Not available. |
| Chronic Effects on Humans | May cause damage to the following organs: kidneys, lungs, mucous membranes, skin, eyes. |
| Other Toxic Effects on Humans | Hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant). |
| 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 | <p>Acute Potential Health Effects:</p> <p>Skin: Causes skin irritation. May cause ulceration. Eyes: Causes eye irritation.</p> <p>Inhalation: Causes respiratory tract (nose, throat, lung) irritation with coughing and shortness of breath. Ingestion: Ingestion of large amounts (high concentrations) of oxalic acid salts may cause have a corrosive effect on the mucous membranes of the oropharynx and perhaps the esophagus. It may also affect behavior/central nervous system (tetany, seizures, muscle twitching, drowsiness, stupor, coma) and cause cardiovascular collapse. May also affect the liver, and cause kidney damage resulting in oliguria, anuria, hematuria, elevated liver enzymes, and liver necrosis.</p> <p>Chronic Potential Health Effects:</p> <p>Skin: Prolonged or repeated exposure may cause cracking of the skin, dermatitis, and slow healing ulcers. Finger nails may become brittle and yellowish. Inhalation: Prolonged or repeated inhalation may cause bronchitis to develop with cough, phlegm and/or shortness of breath. Ingestion: Prolonged or repeated ingestion may lead to kidney stones and kidney damage and may affect liver.</p> |

Section 12. Ecological Information

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| 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 less toxic than the product itself. |

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Special Remarks on the Products of Biodegradation Not available.

Section 13. Disposal Considerations

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

Section 14. Transport Information

DOT Classification 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
 Illinois chemical safety act: Listed as Ammonium oxalate (CAS no. 1113-38-8)
 Pennsylvania RTK: Ammonium oxalate or Ethanedioic acid, ammonium salt (CAS no. 1113-38-8)
 Massachusetts RTK: Listed as Ammonium oxalate (CAS no. 1113-38-8)
 Massachusetts spill list: Listed as Ammonium oxalate (CAS no. 1113-38-8)
 New Jersey: Listed as Ammonium oxalate (CAS no. 1113-38-8)
 New Jersey spill list: Listed as Ammonium oxalate monohydrate
 Louisiana spill reporting: Listed as Ammonium oxalate (CAS no. 1113-38-8)
 California Director's List of Hazardous Substances: Ammonium oxalate (CAS no. 1113-38-8)
 CERCLA: Hazardous substances.: Ammonium oxalate monohydrate: 5000 lbs. (2268 kg)
 TSCA Inventory(8b): Ammonium Oxalate anhydrous CAS no. 1113-38-8 is listed on the TSCA inventory.
 Ammonium Oxalate monohydrate is not.

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
 OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
 EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 214-202-3: Listed as Diammonium oxalate (CAS no. 113-38-8). Ammonium Oxalate monohydrate (CAS no. 6009-70-7 is not listed on the European Inventory of Existing Commercial Chemical Substances).
 CAS No. 113-38-8 (anhydrous) is found on the following lists.
 Canada: Listed as Ethanedioic acid, ammonium salt on Canadian Domestic Substance List (DSL).
 China: Listed as Ethanedioic acid, ammonium salt on National Inventory.
 Japan: Listed as Ammonium oxalate on National Inventory (ENCS).
 Korea: Listed as Ethanedioic acid, ammonium salt on National Inventory (KECI).
 Philippines: Listed as Ethanedioic acid, ammonium salt on National Inventory (PICCS).
 Australia: Listed as Ethanedioic acid, diammonium salt on AICS.
 CAS no. 6009-70-7(monohydrate) is found on the following lists:
 Australia: Listed as Ethanedioic acid, diammonium salt, monohydrate on AICS.

Other Classifications
WHMIS (Canada) CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC)

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Ammonium oxalate monohydrate

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R21/22- Harmful in contact with skin and if swallowed.
R36/37- Irritating to eyes and respiratory system.

S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.)

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| Health Hazard | 2 |
| Fire Hazard | 0 |
| Reactivity | 0 |
| Personal Protection | E |

National Fire Protection Association (U.S.A.)

Health  Flammability
Reactivity
Specific hazard

WHMIS (Canada) (Pictograms)



DSCL (Europe) (Pictograms)



TDG (Canada) (Pictograms)



ADR (Europe) (Pictograms)



Protective Equipment



Gloves.



Lab coat.



Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Splash goggles.

Section 16. Other Information

MSDS Code A5200

References Not available.

Other Special Considerations Not available.

Validated by Sonia Owen on 8/11/2006.

Verified by Sonia Owen.

Printed 9/8/2006.

CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.