SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: Ammonium Oxalate TS, 3.5% (w/v)

Product Number: 679

Other Identifying Product Numbers: 679-1, 679-16, 679-32

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company: Ricca Chemical Company

Address: 448 West Fork Drive

Arlington, TX 76012 USA

Telephone: 888-467-4222

1.4. Emergency Telephone Number (24 hr)

CHEMTREC (USA) 800-424-9300 CHEMTREC (International) 1+ 703-527-3887

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

	Hazard			
Hazard Class	Category	Statement	Precautionary Statements	
Specific Target Organs/Systemic Toxicity Following Single Exposure	Category 2	H371	P260, P264, P270, P308+P311, P405, P501	
Specific Target Organs/Systemic Toxicity Following Repeated Exposure	Category 2	H373	P260, P314, P501	

2.2. GHS Label Elements

Pictograms:



Product Number: 679 Page 1 of 9

Signal Word: Warning

Hazard Statements:

Hazard Number	Hazard Statement
H371	May cause damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements:

Precautionary Number	Precautionary Statement
P260	Do not breathe dust, fumes or mist.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P308+P311	IF exposed or concerned: Call a POISON CENTER or physician.
P314	Get medical attention if you feel unwell.
P405	Store locked up.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

2.3. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Water	H ₂ O	18.01 g/mol	7732-18-5	96.60%
Ammonium Oxalate	$(NH_4)_2C_2O_4\cdot H_2O$	142.11 g/mol	6009-70-7	3.40%

SECTION 4: First-Aid Measures

4.1. General First Aid Information

Eye Contact: May cause irritation, redness, pain, and tearing.

Inhalation: Not expected to require first aid. If necessary, remove to fresh air.

Skin Contact: May cause irritation, redness, and pain.

Product Number: 679 Page 2 of 9

Ingestion: Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

4.2. Most Important Symptoms and Effects, Acute and Delayed

May cause irritation to the eyes and skin. Wash areas of contact with water. Call a physician if irritation develops. If ingested, dilute with water. Do not induce vomiting. Call a physician. May affect kidneys, gastrointestinal system, lungs, central nervous system. EYE CONTACT: May cause irritation, redness, pain, and tearing. SKIN CONTACT: May cause irritation, redness, and pain. CHRONIC EFFECTS / CARCINOGENICITY: Chronic ingestion of small amounts may cause hypocalcemic tetany (calcium deficiency in blood), urinary calculi (hardening of mineral salts around organic material found in the urinary tract).

4.3. Medical Attention or Special Treatment Needed

Not expected to require special treatment.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire.

5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

5.3. Special Protective Equipment for Firefighters

Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear appropriate PPE for the size and nature of the spill. As a general rule, wear safety glasses and gloves.

6.2. Cleanup and Containment Methods and Materials

Absorb with suitable material and dispose of in accordance with local regulations.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

SECTION 8: Exposure Controls / Personal Protection

8.1. Control Parameters

Chemical Name	Limit Type Coun	try Exposure Limit	Information Source
Data not available. ()			

8.2. Exposure Controls

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Product Number: 679 Page 3 of 9

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves. **Eye Protection:** Safety glasses or goggles.

8.3. Personal Protective Equipment

Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance: Colorless liquid

Physical State: Liquid

Odor: Data not available.

Odor Threshold: Data not available.

pH: Approximately 6 - 7

Melting/Freezing Point: Approximately 0°C

Initial Boiling Point /Range: Approximately 100°C - Approximately 100°C

Flash Point: Data not available.

Evaporation Rate: Data not available.

Flammability: Data not available.

Flammability/Explosive Limits: Data not available.

Vapor Pressure: Data not available.

Vapor Density: Data not available.

Relative Density: 1.03

Solubility: Miscible

Partition Coefficient (n-Octanol/Water): Data not available.

Auto-Ignition Temperature: Data not available.

Decomposition Temperature: Data not available.

Viscosity: Data not available.

ExplosiveProperties: Data not available. **Oxidizing Properties:** Data not available.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

Product Number: 679 Page 4 of 9

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Sodium Hypochlorite plus Ammonium Acetate.

10.4. Hazardous Decomposition Products

Will not occur.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not applicable.

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Not applicable.

Acute Toxicity - Other Information:

LD50, Oral, Rat: No information available on normal routes of exposure

Skin Corrosion and Irritation:

Not applicable.

Serious Eye Damage and Irritation:

Not applicable.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

Not applicable.

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

Not applicable.

Reproductive Toxicity:

Not applicable.

Specific Target Organ Toxicity from Single Exposure:

May cause damage to organs. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed or concerned: Call a POISON CENTER or physician. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Product Number: 679 Page 5 of 9

Specific Target Organ Toxicity from Repeated Exposure:

May cause damage to organs through prolonged or repeated exposure. Do not breathe dust, fumes or mist. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Not applicable.

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

SECTION 14: Transportation Information

14.1. Transportation by Land - Department of Transportation (DOT, United States of America)

Not regulated according to DOT Regulations.

Product Number: 679 Page 6 of 9

SECTION 15: Regulatory Information

- 15.1. Occupational Safety and Health Administration (OSHA) Hazards
 Not listed.
- 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances Not listed.
- **15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals**Ammonium Oxalate (CAS # 6009-70-7): 5000 lb final RQ (listed under Ammonium oxalate); 2270 kg final RQ (listed under Ammonium oxalate)
- 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

 Not listed.
- 15.5. Massachusetts Right-to-Know Substance List

Ammonium Oxalate (CAS # 6009-70-7): Present

15.6. Pennsylvania Right-to-Know Hazardous Substances

Ammonium Oxalate (CAS # 6009-70-7): Environmental hazard Ammonium Oxalate (CAS # 6009-70-7): Present Water (CAS # 7732-18-5): Present

15.7. New Jersey Worker and Community Right-to-Know Components

Ammonium Oxalate (CAS # 6009-70-7): sn 0108

15.8. California Proposition 65

Not listed.

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Ammonium Oxalate (CAS # 6009-70-7): Present Water (CAS # 7732-18-5): Present

15.10. United States of America Toxic Substances Control Act (TSCA) List

Ammonium Oxalate (CAS # 6009-70-7): Present Water (CAS # 7732-18-5): Present

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Not listed.

Product Number: 679 Page 7 of 9

SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

May cause damage to organs. May cause damage to organs through prolonged or repeated exposure.

Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product.

IF exposed or concerned: Call a POISON CENTER or physician. Get medical attention if you feel unwell.

Store locked up.

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

16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.

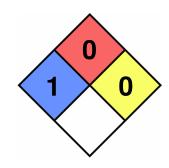
Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.

Health Hazards Not Otherwise Classified (HHNOC): Not Applicable.

Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

Health: 1
Flammability: 0
Reactivity: 0
Special Hazard:



Product Number: 679 Page 8 of 9

16.4. Document Revision

Last Revision Date: 5/1/2015

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.

Product Number: 679 Page 9 of 9