

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: Nitrification Inhibitor

Product Number: R5443990

Other Identifying Product Numbers: R5443990-125D2, R5443990-500C2, R5443990-50B1

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 hours)

CHEMTREC (USA) 800-424-9300

CHEMTREC (International) 1+ 703-527-3887

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

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

Hazard Class	Category	Hazard Statements	Precautionary Statements:
Hazardous to the Aquatic Environment (Chronic)	Category 3	H412	P273, P501

2.2. GHS Label Elements

Pictograms:

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Signal Word:

Hazard Statements:

Hazard Number	Hazard Statement
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements:

Precautionary Number	Precautionary Statement
P273	Avoid release to the environment.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

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%
Sodium Sulfate Anhydrous	Na ₂ SO ₄	142.04 g/mol	7757-82-6	98.13
2-Chloro-6-(trichloromethyl)pyridine	C ₆ H ₃ Cl ₄ N	230.90 g/mol	1929-82-4	1.87

SECTION 4: First-Aid Measures

4.1. General First Aid Information

Eye Contact: May cause slight irritation.

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

Skin Contact: May cause slight irritation.

Ingestion: Dilute with water or milk. Call a physician if necessary.

4.2. Most Important Symptoms and Effects, Acute and Delayed

May cause irritation to the eyes, skin and respiratory tract. Wash areas of contact with water. Call a physician if irritation develops. Contains an ingredient known to the state of California to cause cancer and developmental toxicity. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause slight irritation. CHRONIC EFFECTS / CARCINOGENICITY: Chronic exposure may affect kidneys and liver.

4.3. Medical Attention or Special Treatment Needed

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Not expected to require first aid measures. Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops. Dilute with water or milk. Call a physician if necessary.

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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 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

Small amounts may be flushed to the drain with excess water.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from physical damage. Keep in tightly closed containers in a cool, dry area.

SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
2-Chloro-6-(trichloromethyl)pyridine (1 $\frac{1}{2}$ TWA		USA	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
2-Chloro-6-(trichloromethyl)pyridine (1 $\frac{1}{2}$ TLV-STEL		USA	20 mg/m ³ STEL (inhalable fraction and vapor)	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
2-Chloro-6-(trichloromethyl)pyridine (1 $\frac{1}{2}$ TLV-TWA		USA	10 mg/m ³ TWA (inhalable fraction and vapor)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

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8.2. Exposure Controls

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

Respiratory Protection: A system of local or general exhaust is recommended. If necessary, wear a dust mask respirator to minimize exposure to dust particles.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

8.3. Personal Protective Equipment

A system of local or general exhaust is recommended. If necessary, wear a dust mask respirator to minimize exposure to dust particles. Chemical resistant gloves. Safety glasses or goggles.

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance: Off-white solid

Physical State: Solid

Odor: Data not available.

Odor Threshold: Data not available.

pH: Data not available.

Melting/Freezing Point: 884 - 888°C

Initial Boiling Point/Range: >890°C (with decomposition) - >890°C (with decomposition)

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: 2.7

Solubility: 160 - 200 G/L at 20°C

Partition Coefficient: Data not available.

Auto-Ignition Temperature: Data not available.

Decomposition Temperature: Data not available.

Viscosity: Data not available.

Explosive Properties: Data not available.

Oxidizing Properties: Data not available.

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SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

In combination with sodium sulfate, aluminum and magnesium will explode @ 800C (1472F); strong mineral acids and bases.

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, Mouse: (Sodium Sulfate) 5989 mg/kg, (2-Chloro-(6-Trichloromethyl)-Pyridine) 940 mg/kg, details of toxic effects not reported other than lethal dose value.

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.

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Specific Target Organ Toxicity from Single Exposure:

Not applicable.

Specific Target Organ Toxicity from Repeated Exposure:

Not applicable.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Harmful to aquatic life with long lasting effects. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

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.

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SECTION 14: Transportation Information

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

Not regulated according to DOT Regulations.

14.2. Transportation by Air - International Air Transport Association (IATA)

Not regulated according to IATA Dangerous Goods Regulations.

14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG Regulations.

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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

Not listed.

15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

2-Chloro-6-(trichloromethyl)pyridine (CAS # 1929-82-4): 1.0 % de minimis concentration

15.5. Massachusetts Right-to-Know Substance List

2-Chloro-6-(trichloromethyl)pyridine (CAS # 1929-82-4): Present

Sodium Sulfate Anhydrous (CAS # 7757-82-6): Present (solution)

15.6. Pennsylvania Right-to-Know Hazardous Substances

2-Chloro-6-(trichloromethyl)pyridine (CAS # 1929-82-4): Present

Sodium Sulfate Anhydrous (CAS # 7757-82-6): Environmental hazard (solution)

Sodium Sulfate Anhydrous (CAS # 7757-82-6): Present (solution)

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

2-Chloro-6-(trichloromethyl)pyridine (CAS # 1929-82-4): sn 1355

2-Chloro-6-(trichloromethyl)pyridine (CAS # 1929-82-4): SN 1355 500 lb TPQ

15.8. California Proposition 65

2-Chloro-6-(trichloromethyl)pyridine (CAS # 1929-82-4): carcinogen, 10/5/2005

2-Chloro-6-(trichloromethyl)pyridine (CAS # 1929-82-4): developmental toxicity, 3/30/1999

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

2-Chloro-6-(trichloromethyl)pyridine (CAS # 1929-82-4): Present (DSL)

Sodium Sulfate Anhydrous (CAS # 7757-82-6): Present (DSL)

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

All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates) of active items listed on the TSCA Inventory.

2-Chloro-6-(trichloromethyl)pyridine (CAS # 1929-82-4): Present (ACTIVE)

Sodium Sulfate Anhydrous (CAS # 7757-82-6): Present (ACTIVE)

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

2-Chloro-6-(trichloromethyl)pyridine (CAS # 1929-82-4): 217-682-2

Sodium Sulfate Anhydrous (CAS # 7757-82-6): 231-820-9

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SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

Harmful to aquatic life with long lasting effects.

Avoid release to the environment.

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

16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.

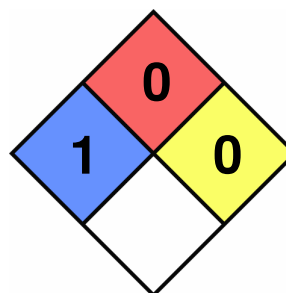
Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.

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

Biohazardous Infectious Materials Hazard Class: Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

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



16.4. Document Revision

Last Revision Date: 2023-09-11

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.