

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: Nitrate Nitrogen Standard, 100 ppm N (442.7 ppm NO₃⁻)

Product Number: 5457

Other Identifying Product Numbers: 5457-16, 5457-32, 5457-4

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:
Carcinogenicity	Category 2	H351	P201, P202, P280, P308+P313, P405, P501
Reproductive Toxicity	Category 2	H361	P201, P202, P280, P308+P313, P405, P501

2.2. GHS Label Elements

Pictograms:



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Signal Word: **Warning**

Hazard Statements:

Hazard Number	Hazard Statement
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.

Precautionary Statements:

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves and eye protection.
P308+P313	IF exposed or concerned: Get medical attention.
P405	Store locked up.
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%
Water	H ₂ O	18.01 g/mol	7732-18-5	99.64
Chloroform	CHCl ₃	119.37 g/mol	67-66-3	0.29
Potassium Nitrate	KNO ₃	101.10 g/mol	7757-79-1	< 0.1

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.

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4.2. Most Important Symptoms and Effects, Acute and Delayed

Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause irritation to the skin and eyes. Wash areas of contact with soap and water. May contain a small amount of chloroform as a preservative. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause slight irritation. CHRONIC EFFECTS / CARCINOGENICITY: Prolonged exposure to small amounts may produce anemia, methemoglobinemia, nephritis.

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. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops. Di with water or milk. Call a physician if necessary.

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 protective gloves and eye protection.

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.

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SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Chloroform (67-66-3)	PEL-Ceiling	USA	50 ppm Ceiling; 240 mg/m ³ Ceiling	U.S. - OSHA - Final PELs - Ceiling Limits
Chloroform (67-66-3)	TLV-TWA	USA	10 ppm TWA	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Chloroform (67-66-3)	TLV-TWA	USA	"10 ppm TWA" As Chloroform [67-66-3]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Chloroform (67-66-3)	PEL-Ceiling	USA	"50 ppm Ceiling; 240 mg/m ³ Ceiling" As Chloroform [67-66-3]	U.S. - OSHA - Final PELs - Ceiling Limits
Chloroform (67-66-3)	TLV-TWA	USA	"0.5 mg/m ³ TWA (as Sb)" As Antimony compounds [RR-00585-6]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Chloroform (67-66-3)	TWA	USA	"0.5 mg/m ³ TWA (as Sb)" As Antimony compounds [RR-00585-6]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Chloroform (67-66-3)	PEL-Ceiling	USA	"50 ppm Ceiling; 240 mg/m ³ Ceiling" As Chloroform [67-66-3]	U.S. - OSHA - Final PELs - Ceiling Limits
Chloroform (67-66-3)	TLV-TWA	USA	"10 ppm TWA" As Chloroform [67-66-3]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

8.2. Exposure Controls

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

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Wear protective gloves and eye protection. Chemical resistant gloves.

Eye Protection: Wear protective gloves and eye protection. Safety glasses or goggles.

8.3. Personal Protective Equipment

Wear protective gloves and eye protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.



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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 7

Melting/Freezing Point: 0.0°C

Initial Boiling Point/Range: 100°C - 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: 1.00

Solubility: Miscible

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.

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

Heavy metals, phosphites, organic compounds, carbonaceous materials, strong acids.

10.4. Hazardous Decomposition Products

Will not occur.

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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: 3750 mg/kg (Potassium Nitrate), 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:

Suspected of causing cancer. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Reproductive Toxicity:

Suspected of damaging fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

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.



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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.

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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.

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

Chloroform (CAS # 67-66-3): "10 lb EPCRA RQ" As Chloroform [67-66-3]

Chloroform (CAS # 67-66-3): "10000 lb TPQ" As Chloroform [67-66-3]

Chloroform (CAS # 67-66-3): 10 lb EPCRA RQ

Chloroform (CAS # 67-66-3): 10000 lb TPQ

15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Chloroform (CAS # 67-66-3): "10 lb final RQ; 4.54 kg final RQ" As Chloroform [67-66-3]

Chloroform (CAS # 67-66-3): 10 lb final RQ; 4.54 kg final RQ

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

Chloroform (CAS # 67-66-3): "0.1 % de minimis concentration" As Chloroform [67-66-3]

Chloroform (CAS # 67-66-3): "1.0 % de minimis concentration (includes any unique chemical substance that contains Antimony as part of that chemical infrastructure, listed under Chemical Category N010)" As Antimony compounds [RR-00585-6]

Chloroform (CAS # 67-66-3): 0.1 % de minimis concentration

Potassium Nitrate (CAS # 7757-79-1): "1.0 % de minimis concentration (reportable only when in aqueous solution, listed under Chemical Category N511)" As Nitrate compounds, water dissociable [RR-03804-0]

Potassium Nitrate (CAS # 7757-79-1): 1.0 % de minimis concentration (reportable only when in aqueous solution, listed under Chemical Category N51)

15.5. Massachusetts Right-to-Know Substance List

Chloroform (CAS # 67-66-3): "Carcinogen; Extraordinarily hazardous" As Chloroform [67-66-3]

Chloroform (CAS # 67-66-3): Carcinogen; Extraordinarily hazardous

Potassium Nitrate (CAS # 7757-79-1): "Present" As Potassium nitrate [7757-79-1]

Potassium Nitrate (CAS # 7757-79-1): Present

15.6. Pennsylvania Right-to-Know Hazardous Substances

Chloroform (CAS # 67-66-3): "Environmental hazard" As Antimony compounds [RR-00585-6]

Chloroform (CAS # 67-66-3): "Environmental hazard" As Halomethanes [RR-00327-0]

Chloroform (CAS # 67-66-3): "Environmental hazard; Special hazardous substance" As Methane, trichloro- [67-66-3]

Chloroform (CAS # 67-66-3): "Present" As Antimony compounds [RR-00585-6]

Chloroform (CAS # 67-66-3): "Present" As Halomethanes [RR-00327-0]

Chloroform (CAS # 67-66-3): "Present" As Methane, trichloro- [67-66-3]

Chloroform (CAS # 67-66-3): Environmental hazard

Chloroform (CAS # 67-66-3): Environmental hazard; Special hazardous substance

Chloroform (CAS # 67-66-3): Present

Water (CAS # 7732-18-5): "Present" As Ethyl alcohol and water [RR-00802-6]

Water (CAS # 7732-18-5): Present

Potassium Nitrate (CAS # 7757-79-1): "Present" As Nitric acid, potassium salt [7757-79-1]

Potassium Nitrate (CAS # 7757-79-1): Present

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

Chloroform (CAS # 67-66-3): "carcinogen" As Chloroform [67-66-3]

Chloroform (CAS # 67-66-3): "SN 0388 500 lb TPQ" As Chloroform [67-66-3]

Chloroform (CAS # 67-66-3): "sn 0388" As Chloroform [67-66-3]

Chloroform (CAS # 67-66-3): "SN 2223 500 lb TPQ (Category Code N010. Includes any unique chemical substance that contains the named metal as part of that chemical structure)" As Antimony compounds [RR-00585-6]

Chloroform (CAS # 67-66-3): "sn 2223" As Antimony compounds [RR-00585-6]

Chloroform (CAS # 67-66-3): carcinogen

Chloroform (CAS # 67-66-3): sn 0388

Chloroform (CAS # 67-66-3): SN 0388 500 lb TPQ

Potassium Nitrate (CAS # 7757-79-1): "sn 1574" As Potassium nitrate [7757-79-1]

Potassium Nitrate (CAS # 7757-79-1): "SN 3722 500 lb TPQ (water dissociable, Category Code N511)" As Nitrate compounds [RR-01770-9]

Potassium Nitrate (CAS # 7757-79-1): "sn 3722" As Nitrate compounds [RR-01770-9]

Potassium Nitrate (CAS # 7757-79-1): sn 1574

Potassium Nitrate (CAS # 7757-79-1): sn 3722

Potassium Nitrate (CAS # 7757-79-1): SN 3722 500 lb TPQ (water dissociable, Category Code N511)

15.8. California Proposition 65

Chloroform (CAS # 67-66-3): "20 µg/day NSRL (oral); 40 µg/day NSRL (inhalation)" As Chloroform [67-66-3]

Chloroform (CAS # 67-66-3): "carcinogen, 10/1/1987" As Chloroform [67-66-3]

Chloroform (CAS # 67-66-3): "developmental toxicity, 8/7/2009" As Chloroform [67-66-3]

Chloroform (CAS # 67-66-3): 20 µg/day NSRL (oral); 40 µg/day NSRL (inhalation)

Chloroform (CAS # 67-66-3): carcinogen, 10/1/1987

Chloroform (CAS # 67-66-3): developmental toxicity, 8/7/2009

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

Chloroform (CAS # 67-66-3): "Present" As Chloroform [67-66-3] (DSL)

Chloroform (CAS # 67-66-3): Present (DSL)

Water (CAS # 7732-18-5): "Present" As Water [7732-18-5] (DSL)

Water (CAS # 7732-18-5): Present (DSL)

Potassium Nitrate (CAS # 7757-79-1): "Present" As Potassium nitrate [7757-79-1] (DSL)

Potassium Nitrate (CAS # 7757-79-1): 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.

Chloroform (CAS # 67-66-3): "Present (ACTIVE)" As Methane, trichloro- [67-66-3]

Chloroform (CAS # 67-66-3): Present (ACTIVE)

Water (CAS # 7732-18-5): "Present (ACTIVE)" As Water [7732-18-5]

Water (CAS # 7732-18-5): Present (ACTIVE)

Potassium Nitrate (CAS # 7757-79-1): "Present (ACTIVE)" As Nitric acid potassium salt (1:1) [7757-79-1]

Potassium Nitrate (CAS # 7757-79-1): Present (ACTIVE)

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

Chloroform (CAS # 67-66-3): "200-663-8" As Chloroform [67-66-3]
 Chloroform (CAS # 67-66-3): 200-663-8
 Water (CAS # 7732-18-5): "231-791-2" As Water [7732-18-5]
 Water (CAS # 7732-18-5): 231-791-2
 Potassium Nitrate (CAS # 7757-79-1): "231-818-8" As Potassium nitrate [7757-79-1]
 Potassium Nitrate (CAS # 7757-79-1): 231-818-8

SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection.

IF exposed or concerned: Get medical attention.

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.

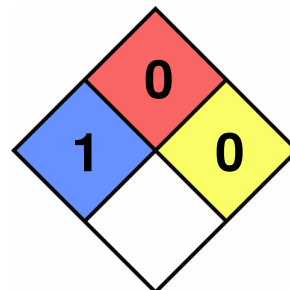
Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.

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

Biohazardous Infectious Materials Hazard Class: Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

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



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16.4. Document Revision

Last Revision Date: 2025-01-30

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.