RICCA CHEMICAL COMPANY®

# Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

## SECTION 1: Identification

### 1.1. Product Identifier

**Trade Name or Designation** Turbidity Standard, 1000 NTU, Formazin

**Product Number** 8825

**Other Identifying Product Numbers** 8825-1, 8825-16

### 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** 412 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 |

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## SECTION 2: Hazard(s) Identification

### 2.1. Classification of the Substance or Mixture

| Hazard Class | Category | Hazard Statements | Precautionary Statements |
|---|---|---|---|
| Respiratory Sensitization | Category 1 | H334 | P261,P284,P304+P340,P342+P311, P501 |
| Skin Sensitization | Category 1 | H317 | P261,P272,P280,P302+P352, P333+P313,P321,P362+P364,P501 |
| Carcinogenicity | Category 1B | H350 | P201,P202,P280,P308+P313,P405, P501 |

### 2.2. GHS Label Elements

**Pictograms:**

**Signal Word:** **Danger**

**Hazard Statements:**

NOTE: Hazard statements may be combined on labels to improve clarity and readability.

| Hazard Number | Hazard Statement |
|---|---|
| H317 | May cause an allergic skin reaction |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| H350 | May cause cancer |

**Precautionary Statements:**

NOTE: Precautionary statements may be combined or consolidated on labels to improve clarity and readability.

**Prevention**

| Precautionary Number | Precautionary Statement |
|---|---|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P261 | Avoid breathing fumes or mist. |
| P272 | Contaminated work clothing must not be allowed out of the workplace. |
| P280 | Wear protective gloves and eye protection. |
| P284 | In case of inadequate ventilation wear respiratory protection. |

**Response**

| Precautionary Number | Precautionary Statement |
|---|---|
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P308+P313 | If exposed or concerned: Get medical advice or attention. |
| P342+P311 | If experiencing respiratory symptoms: Call a poison center or doctor. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |

**Storage**

| Precautionary Number | Precautionary Statement |
|---|---|
| P405 | Store locked up. |

**Disposal**

| Precautionary Number | Precautionary Statement |
|---|---|
| P501 | Dispose of contents/container to suitable waste stream in accordance with local, state, federal, and international regulations. |

## 2.3. Hazards not Otherwise Classified

No other hazards identified.

## 2.4. Ingredients of Unknown Acute Toxicity

1.2 percent of this mixture consists of ingredient(s) of unknown acute inhalation toxicity.

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## SECTION 3: Composition / Information on Ingredients

### 3.1. Components of Mixture

| Chemical Name (IUPAC) | Common Name and Synonyms | CAS Number | Weight% |
|---|---|---|---|
| water | Water | 7732-18-5 | 98.63 |
| 1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decane | Hexamethylenetetramine; hexamine; methenamine | 100-97-0 | 1.24 |
| hydrazinediium sulfate | Hydrazine Sulfate; hydrazinium sulfate | 10034-93-2 | 0.12 |

## SECTION 4: First-Aid Measures

### 4.1. Description of Necessary Measures

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

**Ingestion:** Dilute immediately with water or milk. Induce vomiting. Call a physician.

**Inhalation:** IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**Skin Contact:** IF ON SKIN: Wash with plenty of water. May cause irritation, redness, and pain.

### 4.2. Most Important Symptoms and Effects, Acute and Delayed

May cause cancer Formazin suspensions can contain residual Hydrazine Sulfate, which is a carcinogen. May affect kidneys and liver. Wash areas of contact with water. If ingested, dilute with water, induce vomiting and call a physician. EYE CONTACT: May cause irritation, redness, pain, and tearing. SKIN CONTACT: May cause irritation, redness, and pain.

### 4.3. Immediate 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. Dilute immediately with water or milk. Induce vomiting. Call a physician.

## 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 in a Fire

Not considered to be a fire or explosion hazard.

### 5.3. Special Protective Equipment and Precautions 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. Store at room temperature.

## SECTION 8: Exposure Controls / Personal Protection

### 8.1. Exposure Limits

#### U.S. OSHA - Permissible Exposure Limits (PEL) - Time Weighted Averages (TWA)

No limits found.

#### U.S. OSHA - Permissible Exposure Limits (PEL) - Ceiling Limits

No limits found.

#### U.S. OSHA - Permissible Exposure Limits (PEL) - Short Term Exposure Limits (STEL)

No limits found.

#### U.S. OSHA - Specifically Regulated Chemicals

No limits found.

#### ACGIH - Threshold Limit Values - Ceilings (TLV-C)

No limits found.

#### ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)

No limits found.

#### ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

| Chemical Name | CAS Number | Exposure Limit |
|---|---|---|
| Hexamethylenetetramine | 100-97-0 | 1 mg/m3 TWA (inhalable fraction and vapor) |

### 8.2. Engineering Controls

No specific controls are needed. Normal room ventilation is adequate.

### 8.3. Individual Protective Measures and Personal Protective Equipment

**Respiratory Protection:** Normal room ventilation is adequate.

**Skin Protection:** Chemical resistant gloves.

**Eye Protection:** Safety glasses or goggles.

## SECTION 9: Physical and Chemical Properties

### 9.1. Basic Physical and Chemical Properties

| | |
|---|---|
| **Physical State:** | liquid |
| **Color:** | Milky white suspension |
| **Odor:** | Data not available. |
| **Odor Threshold:** | Data not available. |
| **Melting/Freezing Point:** | 0.0°C |
| **Boiling Point/Range:** | 100°C |
| **Flammability:** | Data not available. |
| **Flammability/Explosive Limits:** | Data not available. |
| **Flash Point:** | Not flammable |
| **Auto-Ignition Temperature:** | Data not available. |
| **Decomposition Temperature:** | Data not available. |
| **pH:** | Data not available. |
| **Kinematic Viscosity:** | Data not available. |
| **Solubility:** | miscible |
| **Vapor Pressure:** | Data not available. |
| **Evaporation Rate:** | Data not available. |
| **Relative Density:** | 1.01 |
| **Relative Vapor Density:** | Data not available. |
| **Particle Characteristics:** | Data not available. |
| **Partition Coefficient n-octanol/water, log** | 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

Strong Oxidizing Agents, metals, metal oxides, acids.

### 10.4. Hazardous Decomposition Products

Will not occur.

## SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

**Acute Toxicity - Oral Exposure:**

Not acutely toxic.

| Chemical Name | CAS Number | Toxicity |
|---|---|---|
| Hexamethylenetetramine | 100-97-0 | Oral LD50 Rat >20000 mg/kg (test substance administered as a 80% aqueous solution; no deaths occurred, Source: EU_RAR) |
| Hydrazine Sulfate | 10034-93-2 | Oral LD50 Acute Toxicity Estimate 100 mg/kg (Source: ECHA) |

**Acute Toxicity - Dermal Exposure:**

Not acutely toxic.

| Chemical Name | CAS Number | Toxicity |
|---|---|---|
| Hexamethylenetetramine | 100-97-0 | Dermal LD50 Rat >2000 mg/kg (test substance administered in an aqueous solution; no deaths occurred, Source: EU_RAR) |
| Hydrazine Sulfate | 10034-93-2 | Dermal LD50 Acute Toxicity Estimate 300 mg/kg (Source: ECHA) |

**Acute Toxicity - Inhalation Exposure:**

Not acutely toxic.

| Chemical Name | CAS Number | Toxicity |
|---|---|---|
| Hydrazine Sulfate | 10034-93-2 | Inhalation LC50 Acute Toxicity Estimate 0.5 mg/L 4 h (Source: ECHA) |

### 11.2 Carcinogenicity:

**International Agency for Research on Cancer (IARC)**

| Chemical Name | CAS Number | Classification |
|---|---|---|
| | No data found. | |

**National Toxicology Program (NTP)**

| Chemical Name | CAS Number | Classification |
|---|---|---|
| Hydrazine Sulfate | 10034-93-2 | Reasonably Anticipated To Be A Human Carcinogen |

**U.S. OSHA specifically regulated carcinogens**

| Chemical Name | CAS Number | Classification |
|---|---|---|
| | No data found. | |

### 11.3 Additional Toxicology Information:

May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause cancer.

## SECTION 12: Ecological Information

### 12.1. Ecotoxicity

| Chemical Name | CAS Number | Species | Exposure | Toxicity |
|---|---|---|---|---|
| Hexamethylenetetramine | 100-97-0 | Freshwater Fish | Acute | LC50 96 h Pimephales promelas 44600 - 55600 mg/L [flow-through] (EPA) |
| Hexamethylenetetramine | 100-97-0 | Water Flea | Acute | EC50 48 h Daphnia magna 29868 - 43390 mg/L (EPA) |

### 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

### 15.01. Occupational Safety and Health Administration (OSHA) Hazards

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| | | No data found. |

### 15.02. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

| Chemical Name | CAS Number | RQ |
|---|---|---|
| | | No data found. |

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

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| | | No data found. |

### 15.04. Superfund Amendments and Reauthorization Act (SARA) 313 Toxics Release Inventory (TRI)

| Chemical Name | CAS Number | List | Regulatory Information |
|---|---|---|---|
| Hydrazine Sulfate | 10034-93-2 | Emission Reporting | 0.1 % de minimis concentration |

### 15.05. Massachusetts Right-to-Know Substance List

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Hydrazine Sulfate | 10034-93-2 | Carcinogen; Extraordinarily hazardous |

### 15.06. Pennsylvania Right-to-Know Hazardous Substances

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Hydrazine Sulfate | 10034-93-2 | Environmental hazard; Special hazardous substance |

### 15.07. New Jersey Worker and Community Right-to-Know Components

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Hexamethylenetetramine | 100-97-0 | sn 0996 |
| Hydrazine Sulfate | 10034-93-2 | sn 2360 |

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### 15.08. California Proposition 65

| Chemical Name | CAS Number | Regulatory Information |
|---|---|---|
| Hydrazine Sulfate | 10034-93-2 | carcinogen, 1/1/1988 |
| Hydrazine Sulfate | 10034-93-2 | 0.2 µg/day NSRL |

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

| Chemical Name | CAS Number | List | Status |
|---|---|---|---|
| Hexamethylenetetramine | 100-97-0 | DSL | Present |
| Hydrazine Sulfate | 10034-93-2 | DSL | Present (CEPA, subsection 81(3) applies) |
| Water | 7732-18-5 | DSL | Present |

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

| Chemical Name | CAS Number | Status |
|---|---|---|
| Hexamethylenetetramine | 100-97-0 | Present (ACTIVE) |
| Hydrazine Sulfate | 10034-93-2 | Present (ACTIVE) |
| Water | 7732-18-5 | Present [XU] (ACTIVE) |

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

| Chemical Name | CAS Number | List | Number |
|---|---|---|---|
| Hexamethylenetetramine | 100-97-0 | EINECS | 202-905-8 |
| Hydrazine Sulfate | 10034-93-2 | EINECS | 233-110-4 |
| Water | 7732-18-5 | EINECS | 231-791-2 |

### 15.12. China - Inventory of Existing chemical Substances (IECSC)

| Chemical Name | CAS Number | Status |
|---|---|---|
| Hexamethylenetetramine | 100-97-0 | Present [34918] |
| Hydrazine Sulfate | 10034-93-2 | Present [23150] |
| Water | 7732-18-5 | Present [32224] |

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### 15.13. Korea - Existing Chemicals Inventory (KECI/KECL)

| Chemical Name | CAS Number | List | Status |
|---|---|---|---|
| Hexamethylenetetramine | 100-97-0 | Annex 1 | Present [KE-18615] |
| Hydrazine Sulfate | 10034-93-2 | Annex 1 | Present [KE-19990] |
| Water | 7732-18-5 | Annex 1 | Present [KE-35400] |

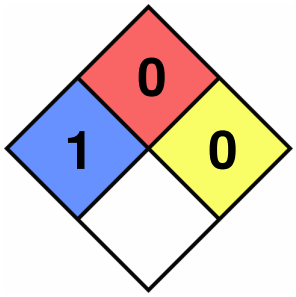
### 15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

| Chemical Name | CAS Number | MITI No. |
|---|---|---|
| Hexamethylenetetramine | 100-97-0 | (5)-1155 |
| Hydrazine Sulfate | 10034-93-2 | (1)-374 (not considered as a new chemical substance) |
| Water | 7732-18-5 | - (listed on Japanese Pharmacopoeia 8th Edition) |

## SECTION 16: Other Information

### 16.1 National Fire Protection Associate (NFPA) Rating

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




### 16.2 Document Revision

**Last Revision Date:**
2026-05-24

## 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.