

## Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS)

### SECTION 1: Identification

#### 1.1. Product Identifier

**Trade Name or Designation:** Turbidity Standard, Primary Standard Stock Formazin Suspension, 4000 NTU

**Product Number:** 8830

**Other Identifying Product Numbers:** 8830-1, 8830-16, 8830-32, 8830-4, 8830-8

#### 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:
Respiratory Sensitizer	Category 1	H334	P261, P285, P304+P341, P342+P311, P501
Skin Sensitizer	Category 1	H317	P261, P272, P280, P302+P352, P332+P313, P321, P363, P501
Carcinogenicity	Category 1	H350	P201, P202, P280, P308+P313, P405, P501
Hazardous to the Aquatic Environment (Acute)	Category 3	H402	P273, P501
Hazardous to the Aquatic Environment (Chronic)	Category 3	H412	P273, P501

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## 2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

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.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

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.
P261	Avoid breathing fumes, mist, vapors, or spray.
P272	Contaminated work clothing must not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P285	In case of inadequate ventilation wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P341	IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical attention.
P321	Specific treatment (Wash areas of contact with water).
P332+P313	If skin irritation occurs: Get medical attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or physician.
P363	Wash contaminated clothing before reuse.
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.

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## SECTION 3: Composition / Information on Ingredients

### 3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Water	H <sub>2</sub> O	18.01 g/mol	7732-18-5	94.55
Hexamethylenetetramine	C <sub>6</sub> H <sub>12</sub> N <sub>4</sub>	140.18 g/mol	100-97-0	4.95
Hydrazine Sulfate	N <sub>2</sub> H <sub>4</sub> ·H <sub>2</sub> SO <sub>4</sub>	128.10 g/mol	10034-93-2	0.50

## SECTION 4: First-Aid Measures

### 4.1. General First Aid Information

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

**Inhalation:** IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

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

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

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

May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. 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. Medical Attention or Special Treatment Needed

Specific treatment (Wash areas of contact with water). 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

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.



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### SECTION 6: Accidental Release Measures

#### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory 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.

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### SECTION 8: Exposure Controls / Personal Protection

#### 8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Hexamethylenetetramine (100-97-0)	TLV-TWA	USA	1 mg/m <sup>3</sup> TWA (inhalable fraction and vapor)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hexamethylenetetramine (100-97-0)	TLV-TWA	USA	"1 mg/m <sup>3</sup> TWA (inhalable fraction and vapor)" As Hexamethylenetetramine [100-97-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hexamethylenetetramine (100-97-0)	TLV-TWA	USA	"1 mg/m <sup>3</sup> TWA (inhalable fraction and vapor)" As Hexamethylenetetramine [100-97-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hexamethylenetetramine (100-97-0)	TLV-TWA	USA	"1 mg/m <sup>3</sup> TWA (inhalable fraction and vapor)" As Hexamethylenetetramine [100-97-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hexamethylenetetramine (100-97-0)	TLV-TWA	USA	"1 mg/m <sup>3</sup> TWA (inhalable fraction and vapor)" As Hexamethylenetetramine [100-97-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hexamethylenetetramine (100-97-0)	TLV-TWA	USA	"1 mg/m <sup>3</sup> TWA (inhalable fraction and vapor)" As Hexamethylenetetramine [100-97-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hexamethylenetetramine (100-97-0)	TLV-TWA	USA	"1 mg/m <sup>3</sup> TWA (inhalable fraction and vapor)" As Hexamethylenetetramine [100-97-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hexamethylenetetramine (100-97-0)	TLV-TWA	USA	"1 mg/m <sup>3</sup> TWA (inhalable fraction and vapor)" As Hexamethylenetetramine [100-97-0]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Hexamethylenetetramine (100-97-0)	TLV-TWA	USA	"1 mg/m <sup>3</sup> TWA (inhalable fraction and vapor)" As Hexamethylenetetramine [100-97-0]	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:** In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate.

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



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

### 8.3. Personal Protective Equipment

Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection. 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:** Milky white suspension

**Physical State:** Liquid

**Odor:** Data not available.

**Odor Threshold:** Data not available.

**pH:** Data not available.

**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:** 1.01

**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.

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### 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 applicable.

#### Acute Toxicity - Dermal Exposure:

Not applicable.

#### Acute Toxicity - Inhalation Exposure:

Not applicable.

#### Acute Toxicity - Other Information:

LD50, Oral, Rat: 601 mg/kg (Hydrazine Sulfate), details of toxic effects not reported other than lethal dose value. LD50, Oral, Rat: Not available for Hexamethylenetetramine.

#### Skin Corrosion and Irritation:

Not applicable.

#### Serious Eye Damage and Irritation:

Not applicable.

#### Respiratory Sensitization:

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Avoid breathing fumes, mist, vapors, or spray. In case of inadequate ventilation wear respiratory protection. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician. Dispose of contents in accordance with local, state, federal and international regulations.

#### Skin Sensitization:

May cause an allergic skin reaction. Avoid breathing fumes, mist, vapors, or spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Specific treatment (Wash areas of contact with water). Wash contaminated clothing before reuse. Dispose of contents in accordance with local, state, federal and international regulations.

#### Germ Cell Mutagenicity:

Not applicable.

#### Carcinogenicity:

May cause 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:

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. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.  
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)

Hydrazine Sulfate (CAS # 10034-93-2): "0.1 % de minimis concentration" As Hydrazine sulfate [10034-93-2]

Hydrazine Sulfate (CAS # 10034-93-2): 0.1 % de minimis concentration

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

Hydrazine Sulfate (CAS # 10034-93-2): "Carcinogen; Extraordinarily hazardous" As Hydrazine sulfate [10034-93-2]

Hydrazine Sulfate (CAS # 10034-93-2): Carcinogen; Extraordinarily hazardous

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

Hydrazine Sulfate (CAS # 10034-93-2): "Environmental hazard; Special hazardous substance" As Hydrazine, sulfate (1:1) [10034-93-2]

Hydrazine Sulfate (CAS # 10034-93-2): "Present" As Hydrazine, sulfate (1:1) [10034-93-2]

Hydrazine Sulfate (CAS # 10034-93-2): Environmental hazard; Special hazardous substance

Hydrazine Sulfate (CAS # 10034-93-2): Present

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

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

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

Hexamethylenetetramine (CAS # 100-97-0): "sn 0996" As Hexamine [100-97-0]

Hexamethylenetetramine (CAS # 100-97-0): sn 0996

Hydrazine Sulfate (CAS # 10034-93-2): "carcinogen" As Hydrazine sulfate [10034-93-2]

Hydrazine Sulfate (CAS # 10034-93-2): "SN 2360 500 lb TPQ" As Hydrazine sulfate [10034-93-2]

Hydrazine Sulfate (CAS # 10034-93-2): "sn 2360" As Hydrazine sulfate [10034-93-2]

Hydrazine Sulfate (CAS # 10034-93-2): carcinogen

Hydrazine Sulfate (CAS # 10034-93-2): sn 2360

Hydrazine Sulfate (CAS # 10034-93-2): SN 2360 500 lb TPQ

### 15.8. California Proposition 65

Hydrazine Sulfate (CAS # 10034-93-2): "0.2 µg/day NSRL" As Hydrazine sulfate [10034-93-2]

Hydrazine Sulfate (CAS # 10034-93-2): "carcinogen, 1/1/1988" As Hydrazine sulfate [10034-93-2]

Hydrazine Sulfate (CAS # 10034-93-2): 0.2 µg/day NSRL

Hydrazine Sulfate (CAS # 10034-93-2): carcinogen, 1/1/1988

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

Hexamethylenetetramine (CAS # 100-97-0): "Present" As Methenamine [100-97-0] (DSL)  
Hexamethylenetetramine (CAS # 100-97-0): Present (DSL)  
Hydrazine Sulfate (CAS # 10034-93-2): "Present (CEPA, subsection 81(3) applies)" As Hydrazine sulfate [10034-93-2] (DSL)  
Hydrazine Sulfate (CAS # 10034-93-2): Present (CEPA, subsection 81(3) applies) (DSL)  
Water (CAS # 7732-18-5): "Present" As Water [7732-18-5] (DSL)  
Water (CAS # 7732-18-5): 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.

Hexamethylenetetramine (CAS # 100-97-0): "Present (ACTIVE)" As 1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decane [100-97-0]  
Hexamethylenetetramine (CAS # 100-97-0): Present (ACTIVE)  
Hydrazine Sulfate (CAS # 10034-93-2): "Present (ACTIVE)" As Hydrazine, sulfate (1:1) [10034-93-2]  
Hydrazine Sulfate (CAS # 10034-93-2): Present (ACTIVE)  
Water (CAS # 7732-18-5): "Present (ACTIVE)" As Water [7732-18-5]  
Water (CAS # 7732-18-5): Present (ACTIVE)

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

Hexamethylenetetramine (CAS # 100-97-0): "202-905-8" As Methenamine [100-97-0]  
Hexamethylenetetramine (CAS # 100-97-0): 202-905-8  
Hydrazine Sulfate (CAS # 10034-93-2): "233-110-4" As Hydrazinium(2+) sulphate [10034-93-2]  
Hydrazine Sulfate (CAS # 10034-93-2): 233-110-4  
Water (CAS # 7732-18-5): "231-791-2" As Water [7732-18-5]  
Water (CAS # 7732-18-5): 231-791-2

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## SECTION 16: Other Information

### 16.1. Full Text of Hazard Statements and Precautionary Statements

May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause cancer. Harmful to aquatic life with long lasting effects.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing fumes, mist, vapors, or spray. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

IF ON SKIN: Wash with plenty of soap and water. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. IF exposed or concerned: Get medical attention. Specific treatment (Wash areas of contact with water). If skin irritation occurs: Get medical attention. If experiencing respiratory symptoms: Call a POISON CENTER or physician. Wash contaminated clothing before reuse.

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.

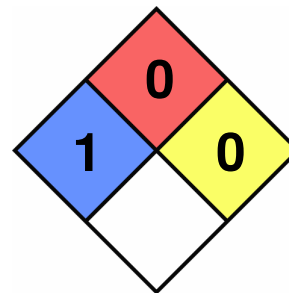
**Physical Hazards Not Otherwise Classified (PHNOC):** Not Applicable.

**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:**



### 16.4. Document Revision

**Last Revision Date:** 2025-02-02

## 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.