

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name	Hexamethylenetetramine
CAS number	100-97-0
Synonyms	HMTA; Hexamine; Methenamine

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals.
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#### 1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

#### 1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable Solids	Category 2
Skin Sensitization	Category 1
Combustible Dust	Yes

#### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Warning

Hazard statements

Flammable solid.  
May form combustible dust concentrations in air.  
May cause an allergic skin reaction.

Precautionary statements

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs, get medical advice/attention. Wash contaminated clothing before reuse.

Fire: In case of fire, use CO<sub>2</sub>, dry chemical, or foam for extinction.

Storage: Store in a well-ventilated place. Keep container tightly closed.

Disposal: Dispose of contents/container to an approved waste disposal plant.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Methenamine	HMTA; Hexamine; Hexamethylenetetramine	100-97-0	<=100%

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

#### If inhaled

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

- In case of skin contact** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
- In case of eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
- If swallowed** Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

#### 4.2 Most important symptoms and effects, both acute and delayed

May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

#### 4.3 Indication of any immediate medical attention and special treatment needed

If symptoms persist, call a physician. Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** Water spray, Carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam.

**Unsuitable extinguishing media** No information available.

### 5.2 Specific hazards arising from the substance or mixture

Flammable. Containers may explode when heated. Dust can form an explosive mixture with air. Fine dust dispersed in air may ignite.

Hazardous Combustion Products: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Ammonia. Formaldehyde.

### 5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 5.4 Further information

**Flash Point** 250 °C / 482 °F

**Autoignition Temperature** > 371 °C / 699.8 °F

## Explosion limits

**Upper** No data available.

**Lower** No data available.

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

## NFPA

Health	Flammability	Instability	Physical hazards
2	2	1	N/A

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Avoid dust formation. Ensure adequate ventilation.

### 6.2 Environmental precautions

Should not be released into the environment.

### 6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal.

### 6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Precautions on safe handling

Wear personal protective equipment/face protection. Avoid ingestion and inhalation. Avoid dust formation. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage conditions

Keep containers tightly closed in a dry, cool, and well-ventilated place. Flammables area. Keep away from heat, sparks, and flame.

#### Incompatibilities

Strong oxidizing agents. Strong acids.

## SECTION 8: Exposure controls/personal protection

## 8.1 Occupational exposure limits

### US. ACGIH Threshold Limit Values

Component	Type	Value
Methenamine	TWA	1 mg/m <sup>3</sup>

### Biological occupational exposure limits

No information available.

## 8.2 Exposure controls

### Appropriate engineering controls

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment.

### Personal protective equipment

#### Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

#### Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

#### Body Protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

#### Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended Filter type: Particulates filter conforming to EN 143.

#### Control of environmental exposure

No information available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical State	Solid powder
Appearance	White
Odor	Odorless

Odor Threshold	No information available
pH	No information available
Melting Point/Range	263 - 280 °C / 505.4 - 536 °F
Boiling Point/Range	No information available
Evaporation Rate	Not applicable
Flammability (solid)	No information available
Flammability or explosive limit	No data available
Upper	
Lower	
Vapor Pressure	No information available
Vapor Density	Not applicable
Density	1.33
Solubility	Soluble in water
Partition coefficient; n-octanol/water	-2.84
Autoignition Temp	> 371 °C / 699.8 °F
Decomposition Temp	No information available
Viscosity	Not applicable
Molecular Formula	C6 H12 N4
Molecular Weight	140.19 g/mol
VOC Content(%)	No information available
Oxidizing properties	No information available

## 9.2 Other safety information

No information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Known reactive hazard.

### 10.2 Chemical stability

Stable under normal conditions. Moisture sensitive.

### 10.3 Possibility of hazardous reactions

None under normal processing.

### 10.4 Conditions to avoid

Avoid dust formation. Keep away from open flames, hot surfaces, and sources of ignition. Incompatible products. Excess heat. Exposure to moisture.

### 10.5 Incompatible materials

Strong oxidizing agents, Strong acids.

### 10.6 Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>), Ammonia, Formaldehyde.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

##### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methenamine	9200 mg/kg (Rat)	>2000 mg/kg (Rat)	-

##### Skin corrosion/irritation

No information available.

##### Serious eye damage/eye irritation

No information available.

##### Respiratory or skin sensitization

May cause sensitization by skin contact.

##### Germ cell mutagenicity

No information available.

##### Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Methenamine	100-97-0	Not listed	Not listed	Not listed	Not listed	Not listed

##### Specific target organ toxicity - single exposure

None known.

##### Specific target organ toxicity - repeated exposure

None known.

##### Reproductive toxicity

No information available.

##### Chronic effects

Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

### 11.2 Additional Information

The toxicological properties have not been fully investigated..

## SECTION 12: Ecological information

### 12.1 Toxicity

Product		Species	Test Results
Methenamine	LC50	Pimephales promelas	49.8 g/L/96h
	EC50	Water Flea	36 g/L/48h

## 12.2 Persistence and degradability

Persistence is unlikely.

## 12.3 Bio accumulative potential

No information available.

## 12.4 Mobility in soil

Will likely be mobile in the environment due to its water solubility.

## 12.5 Results of PBT and vPvB assessment

No information available.

## 12.6 Endocrine disrupting properties

No information available.

## 12.7 Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information

### DOT (US)

UN-No	UN1328
Proper Shipping Name	HEXAMETHYLENETETRAMINE
Hazard Class	4.1
Packing Group	III

### IMDG

UN-No	UN1328
Proper Shipping Name	HEXAMETHYLENETETRAMINE
Hazard Class	4.1
Packing Group	III

### IATA

UN-No	UN1328
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Proper Shipping Name           HEXAMETHYLENETETRAMINE  
Hazard Class                    4.1  
Packing Group                  III

## SECTION 15: Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
Not applicable.

**CERCLA Hazardous Substance List (40 CFR 302.4)**  
Not listed.

**SARA 304 Emergency release notification**  
Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**  
Not regulated.

### **Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**  
Not listed.

**SARA 311/312 Hazardous**  
See Section 2 for more information.

**SARA 313 (TRI reporting)**  
Not regulated.

### **Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**  
Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**  
Not regulated.

**Safe Drinking Water Act**  
Not regulated.

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**  
Not listed.

### **US state regulations**

**US. Massachusetts RTK - Substance List**

Not listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Listed, Methenamine (CAS #100-97-0).

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**California Proposition 65**

Not listed.

**SECTION 16: Other information**

Issue date: 01/22/2024

Revision 1: 01/20/2025

**SECTION 17: Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.