



# SAFETY DATA SHEET

Revision Date **29-Mar-2012**

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product Name** GUANIDINE HYDROCHLORIDE, ULTRA PURE

**Recommended Use** For research use only  
**Registration Number** No information available

### 1.1 Product Identifier

**Catalog Number:** 820540

**Supplier:** MP Biomedicals, LLC  
29525 Fountain Parkway  
Solon, OH 44139  
tel: 440-337-1200

**Emergency Telephone Number:** CHEMTREC: 1-800-424-9300 (1-703-527-3887)

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

## 2. HAZARDS IDENTIFICATION

### GHS - Classification

**Acute Dermal Toxicity** Category 4

### GHS Label elements, including precautionary statements

**Physical Hazards** None

### Risk Code

R22 - Harmful if swallowed.

### Risk Combination Phrases

R36/38 - Irritating to eyes and skin.

### S-phrase(s)

S22 - Do not breathe dust.



Signal Word

Warning

**Precautionary Statements**

- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P302+ P352 - IF ON SKIN: Wash with plenty of soap and water
- P312 - Call a POISON CENTER/doctor/physician if you feel unwell
- P322 - Specific measures (see .? on this label)
- P363 - Wash contaminated clothing before reuse
- P501 - Dispose of contents/container to an approved waste disposal plant

**NFPA rating:**

**NFPA Health:** 2  
**NFPA Flammability:** 0  
**NFPA Reactivity:** 0  
**NFPA Special Note:** -

**Precautionary Statements**

**Prevention**

Wear protective gloves/protective clothing/eye protection/face protection.

**General advice**

Specific measures (see supplemental first aid instructions on this label).

**Skin**

IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.

**Disposal**

Dispose of contents of container to an approved waste disposal plant

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**

**Synonyms:** Not Available  
**Formula:** CH5N3•ClH  
**Molecular weight:** 95.5

Chemical Name	EC No.	CAS Number	Weight %	Classification (67/548)	Classification (Reg. 1272/2008)	REACH Registration Number
GUANIDINE HYDROCHLORIDE	EEC No. 200-002-3	50-01-1	100	Xn; R22 Xi; R36/38	GHS07 (Wng) H302 H319 H315	No data available

For the full text of the R phrases and H statements mentioned in this section, see Section 2

**4. FIRST AID MEASURES**

**4.1 Description of first-aid measures**

**General Advice**

Immediate medical attention is not required. Show this safety data sheet to the doctor in attendance.

**Eye Contact**

Immediate medical attention is not required Rinse thoroughly with plenty of water, also under the eyelids.

**Skin Contact**

If skin irritation persists, call a physician. Immediate medical attention is not required. Wash off immediately with plenty of water.

**Inhalation**

Immediate medical attention is not required Move to fresh air.

**Rinse mouth**

Immediate medical attention is not required. Drink plenty of water. If symptoms persist, call a physician.

**Protection of First-aiders**

Use personal protective equipment.

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

**Main Symptoms** No information available

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

**Notes to Physician** Treat symptomatically.

### **5. FIRE-FIGHTING MEASURES**

#### **5.1 Extinguishing media**

##### **Suitable Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>). Water. Foam.

Standard procedure for chemical fires

##### **Extinguishing media which must not be used for safety reasons**

No information available

#### **5.2 Special hazards arising from the substance or mixture**

No information available.

#### **5.3 Advice for firefighters**

No information available.

### **6. ACCIDENTAL RELEASE MEASURES**

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

Ensure adequate ventilation.

See Section 12 for additional information.

#### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. No special environmental precautions required.

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

Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water.

#### **6.4 Reference to other sections**

See Section 12 for additional information

### **7. HANDLING AND STORAGE**

#### **Storage**

ROOM TEMPERATURE

#### **7.1 Precautions for safe handling**

Ensure adequate ventilation.

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

Keep containers tightly closed in a cool, well-ventilated place

Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition.

### 7.3 Specific end uses

#### Exposure Scenario

No information available

#### Other Guidelines

No information available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

<b>Exposure Limits</b>	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
<b>Derived No Effect Level (DNEL)</b>	No information available
<b>Predicted No Effect Concentration (PNEC)</b>	No information available

### 8.2 Exposure controls

**Engineering Measures** Ensure adequate ventilation, especially in confined areas..

#### Personal Protective Equipment

**Eye Protection** Tightly fitting safety goggles

**Skin and Body Protection** Long sleeved clothing

**Hand Protection** Protective gloves

**Respiratory Protection** Effective dust mask..

**Environmental Exposure Controls** Do not allow material to contaminate ground water system..

**Hygiene Measures** General industrial hygiene practice..

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical State** Powder.

#### Physical Property Data

<b>pH Value</b>	5.4
<b>Flash Point</b>	No information available
<b>Autoignition Temperature</b>	No data available
<b>Melting/Freezing Point</b>	184°C
<b>Boiling Point (°C)</b>	No information available.
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No information available
<b>Water Solubility</b>	2150 g/L AT 20°C
<b>Evaporation Rate</b>	No data available.
<b>Flammability (solid, gas)</b>	No data available
<b>Flammability Limits in Air</b>	
<b>upper flammability limit</b>	No data available
<b>lower flammability limit</b>	No data available
<b>Density</b>	No data available
<b>Specific Gravity</b>	No data available.
<b>Decomposition Temperature</b>	No data available
<b>Viscosity, Kinematic</b>	No data available.

<b>Viscosity, Dynamic</b>	No data available.
<b>Explosive Properties</b>	No information available.
<b>Oxidizing Properties</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density VALUE</b>	1.344-1.354 g/cm <sup>3</sup> at 20°C

**9.2 Other Safety Information**

Other Safety Information

**10. STABILITY AND REACTIVITY**

**10.1 Reactivity**

No data available

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

Hazardous polymerization does not occur.

**10.4 Conditions to avoid**

None in particular

**10.5 Incompatible Materials**

None in particular

**10.6 Hazardous Decomposition Products**

No data available

**11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

<b>Acute Toxicity</b>	Product does not present an acute toxicity hazard based on known or supplied information
<b>Inhalation</b>	No information available.
<b>Eye Irritation</b>	Irritating to eyes. Risk of serious damage to eyes. May cause eye irritation with susceptible persons.
<b>Skin Irritation</b>	Irritating to skin.
<b>Ingestion</b>	Harmful if swallowed.
<b>Acute toxicity</b> 0% of the mixture consists of ingredient(s) of unknown toxicity	

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
GUANIDINE HYDROCHLORIDE 50-01-1		2000 mg/kg (Rabbit)	

**Mutagenic Effects** Contains no ingredient listed as a mutagen.

**Carcinogenic Effects** None known.

**Reproductive Toxicity** None known

**Developmental Toxicity** None known.

**Aspiration hazard** None known

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Chemical Name	Ecotoxicity - Freshwater Algae - Acute Toxicity Data	Ecotoxicity - Freshwater Fish - Acute Toxicity Data	Ecotoxicity - Water Flea - Acute Toxicity Data
GUANIDINE HYDROCHLORIDE 50-01-1		LC50 (48 h) 1758mg/L (Leuciscus idus)	

### 12.2 Persistence and degradability

No data is available on the product itself

### 12.3 Bioaccumulative potential

No information available

Chemical Name	Log Pow
GUANIDINE HYDROCHLORIDE 50-01-1	1.7

### 12.4 Mobility in soil

No information available

### 12.5 Results of PBT and vPvB assessment

No information available.

### 12.6 Other adverse effects

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors

## 13. DISPOSAL CONSIDERATIONS

**Waste from Residues/Unused Products** Dispose of in accordance with local regulations

**Contaminated Packaging** Clean container with water Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. TRANSPORT INFORMATION

**IMDG/IMO** Not regulated

## 14. TRANSPORT INFORMATION

<u>ICAO</u>	Not regulated
<u>ICAO/IATA</u>	Not regulated
<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

Chemical Name	TSCA	EINECS / ELINCS	DSL / NDSL	PICCS	ENCS	IECSC	AICS	KECL
GUANIDINE HYDROCHLORIDE	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed

### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances / EU List of Notified Chemical Substances  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**PICCS** - Philippine Inventory of Chemicals and Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances

## 16. OTHER INFORMATION

### Disclaimer

The information provided on this SDS 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

End of Material Safety Data Sheet

Key literature references and sources for data  
[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)