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Rev. 5

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

Product Name: Guanidine Hydrochloride
Product Code: IB05080
Recommend Use: For further manufacturing use only
Not for human or animal drug use
Purification of nucleic acids or polypeptides from cell sources and inhibition of both RNase and proteinase activity.
Synonyms: AMINOFORMAMIDINE HYDROCHLORIDE * AMINOETHANAMIDINE HYDROCHLORIDE
Company: IBI SCIENTIFIC
7445 Chavenelle Road
Dubuque, IA 52002
Emergency Tele. Number: 3E Company (Acct# 9027) 1-800-451-8346 / (001) 760-602-8703
Company Tele. Number: 1-800-253-4942 / (001) 563-690-0484
E-Mail Address: info@ibisci.com

2. HAZARDOUS IDENTIFICATION

GHS – Classification

Classification: Acute Toxicity Oral 4 Skin Irritant 2 Eye Irritant 2
Signal Word: Warning



Hazard Statements: H302-Harmful if swallowed * H319-Causes serious eye irritation * H315-Causes skin irritation.

Precautionary Statements: P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: Guanidine Hydrochloride
EC No.: EEC No. 200-002-3
REACH Reg. No.: Not Available
CAS No.: 50-01-1
Weight %: 95 – 100
Classification: Xn;R22 Xi;R36/38

4. FIRST AID MEASURES

Eye Contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin Contact:	Wash off immediately with soap and plenty of water, removing all contaminated clothes and shoes.
Inhalation:	Move to fresh air. If breathing is difficult, give oxygen.
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth. Consult a physician.
Notes to Physician:	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flammable Properties:	Not flammable
Flash Point:	Not determined
Suitable Extinguishing Media:	Dry chemical, CO ₂ , water spray, alcohol-resistant foam
Hazardous Combustion Products:	Carbon oxides, Nitrogen oxides (NO _x), Emits toxic fumes.
Explosion Data	
Sensitivity to Mechanical Impact:	Not sensitive
Sensitivity to Static Discharge:	Not sensitive
Protective Equip. & Precautions for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equiv.) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid contact with skin, eyes, and clothing. Use personal protective equipment. Ensure adequate ventilation.
Methods for Containment:	Prevent further leakage or spillage, if safe to do so.
Methods for Cleaning Up:	Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Handling:	Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Hygroscopic.
Storage:	Keep container tightly closed in a dry, cool, and well-ventilated place. Hygroscopic.
Incompatible Products:	Strong oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name:	Guanidine Hydrochloride - #50-01-1
ACGIH TLV:	-
OSHA PEL:	-
NIOSH IDLH:	-
Engineering Measures:	Showers, Eyewash Stations, Ventilation Systems
<u>Personal Protective Equipment</u>	
Eye/Face Protection:	Safety glasses with side shields. Avoid contact with eyes.
Skin & Body Protection:	Wear protective gloves/clothing.
Respiratory Protection:	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures:	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White powder
Odor:	No information available
Odor Threshold:	No information available
Decomposition Temp. °C:	No information available
Freezing Point:	No information available
Initial Boiling Point:	No information available
Physical State:	Crystalline powder
pH:	(as 1% solution) 6
Flash Point:	Not determined
Autoignition Temp. °C:	No data available
Boiling Point/Range:	No data available
Melting Point/Range:	No data available
Flammability Limits (Air):	<u>Upper</u> -No data available * <u>Lower</u> -No data available
Explosion Limits	No information available
Explosive Properties:	No information available
Oxidizing Properties:	No information available
Evaporation Rate:	No information available
MMHG @ 37.8°C:	No data available
Vapor Density:	No data available
Specific Gravity:	1.4
Solubility:	Very soluble in water
Partition Coefficient (n-octanol/water):	No data available
Viscosity:	No information available

10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions
Incompatible Products:	Strong oxidizing agents
Conditions to Avoid:	Hygroscopic. Protect from moisture.
Hazardous Decomposition Products:	Carbon oxides, Nitrogen oxides (NO _x), Toxic fumes.
Hazardous Polymerization:	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information:	Harmful if swallowed, inhaled, or absorbed through skin. Causes skin, eye, and respiratory tract irritation.
Chemical Name:	Guanidine Hydrochloride - #50-01-1
LD50 Oral:	-
LD50 Dermal:	2000mg/kg (Rabbit)
LC50 Inhalation:	-

Chronic Toxicity

Chronic Toxicity:	No known effect based on information supplied.
Target Organ Effects:	Bone marrow, Nerves.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Chemical Name:	Harmful to aquatic organisms. Guanidine Hydrochloride - #50-01-1
Toxicity to Algae:	-
Toxicity to Fish:	-
Microtox	EC50 = 88.7mg/L (18hr)
Daphnia Magna (Water Flea):	-
Log Pow	<=-1.7 @ °C

13. DISPOSAL CONSIDERATIONS

Water Disposal Method: Dispose of material in accordance with all federal, state, and local regulations.
Contaminated Packaging: Dispose of in accordance with all federal, state, and local regulations.

14. TRANSPORT INFORMATION

IATA

Not regulated

US DOT

Not regulated

15. TOXICOLOGICAL INFORMATION

REACH Title VII Restrictions

Chemical Name:	No information available
Dangerous Substances:	Guanidine Hydrochloride - #50-01-1
Organic Solvents:	Not applicable
Harmful Substances Whose Names are to be indicated on the Label:	Not applicable
Pollution Release and Transfer Registry (Class II):	Not applicable
Pollution Release and Transfer Registry (Class I):	Not applicable
Poison and Deleterious Substances Control Law:	Not applicable
ISHA – Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying:	Not applicable
ISHA – Harmful Substances Requiring Permission:	Not applicable
Toxic Chemical Classification Listing (TCCL):	Not applicable
Toxic Release Inventory (TRI) – Group I:	Not applicable
Toxic Release Inventory (TRI) – Group II:	Not applicable

International Inventories

TSCA:	Complies
EINECS/ELINCS:	Complies
ENCS:	Complies
IECSC:	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

U.S. Federal Regulations

SARA 313 Section 313 of Title III of the superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain a chemical/chemicals which are subject to the reporting requirements of the Act & Title 40 of the Code of Federal Regulations, part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

CERCLA

U.S. State Regulations
California Proposition 65

This product does not contain any Proposition 65 chemicals.

International Regulations
Mexico

No information available

Canada

No information available

WHMIS Hazard Class
D2B – Toxic materials



16. OTHER INFORMATION

Issuing Date: 22-Dec-1997
Revision Date: 3-Jul-2018
Revision Note: Updated address and logo
Recommended Restrictions: No information available
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 test.

End of Safety Data Sheet