

SAFETY DATA SHEET

Cat# AUR10417, Guanidine Hydrochloride,
BioPureact™ Grade



Date: 9/01/2022

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY

1.1 Product identifiers

Product Name : GUANIDINE HYDROCHLORIDE, BIOPUREACT™ GRADE
Product Number : AUR10417
Manufacturer : Aurora Medbiochem
Address : 938 South Andreasen Drive, Suite E
Escondido, CA 92029 USA

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Emergency telephone

Emergency Phone # : +1-760-738-1508
Fax Phone # : +1-760-738-1530

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	EC-No.	Molecular Weight	Chemical Formula
GUANIDINE HYDROCHLORIDE, BIOPUREACT™ GRADE	50-01-1	200-002-3	95.5	C ₁₅ H ₁₂ ClF ₃ N ₂ O ₃ S

SECTION 3: HAZARDS IDENTIFICATION

Product/ Chemical Name	Description	Safety Information	Concentration
GUANIDINE HYDROCHLORIDE, BIOPUREACT™ GRADE	White solid	See below	<= 100 %

Emergency Overview:

OSHA Hazards: Irritant

Classification according to Regulation (EC) No 1272/2008

GHS Classification: Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

GHS Label elements, including precautionary statements

Pictogram:



Signal word: Warning

Hazard statement(s):

H302 + H332 Harmful if swallowed or if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statement(s):

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of water.

SAFETY DATA SHEET

Cat# AUR10417, Guanidine Hydrochloride,
BioPureact™ Grade



Date: 9/01/2022

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

HMIS Classification

Health hazard: 2

Flammability: 0

Physical hazards: 0

NFPA Rating

Health Hazard: 2

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation: May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed

Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 4: FIRST AID MEASURES

Description of first-aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: Flush eyes with water as a precaution.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water.

SECTION 5: FIREFIGHTING MEASURE

Condition of flammability: Not flammable or combustible.

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions— see section 10.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SAFETY DATA SHEET

Cat# AUR10417, Guanidine Hydrochloride,
BioPureact™ Grade



Date: 9/01/2022

Personal precautions: Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert.

Environmental precautions: Do not let product enter drains.

Methods for cleaning up: Sweep up and shovel. Keep in suitable, closed containers for disposal

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces, and sources of ignition. precautionary measures against static discharge.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature : +2 to +8 °C

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection:

Required when vapours/aerosols are generated. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Recommended Filter type: Filter type ABEK

Hand protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection:

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin and body protection:

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures: General industrial hygiene practice.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	GUANIDINE HYDROCHLORIDE, BIOPUREACT™ GRADE
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SAFETY DATA SHEET

Cat# AUR10417, Guanidine Hydrochloride,
BioPureact™ Grade



Date: 9/01/2022

Appearance:	White solid
pH:	4,5 - 6,0 at 571,8 g/l at 25 °C
Water Solubility:	Water (>500 mg/ml)
Other Solubility:	No data available
Boiling Point (°C):	No data available
Melting Point (°C):	range: 185 - 189 °C
Flash Point (°C):	No data available
Ignition Temperature (°C):	No data available
Density:	1,345 g/cm3 at 20 °C

SECTION 10: STABILITY AND REACTIVITY

Property	GUANIDINE HYDROCHLORIDE, BIOPUREACT™ GRADE
Chemical stability	Stable under recommended storage conditions
Conditions to avoid:	No data available
Materials to avoid:	Strong oxidizing agents, Strong acids, Hydrogen fluoride
Hazardous decomposition products:	Carbon oxides, nitrogen oxides, Hydrogen chloride gas

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity: Acute toxicity estimate Oral - 792,62 mg/kg

(Calculation method)

LD50 Oral - Rat - female - 773,6 mg/kg (Guanidinium chloride)

(OECD Test Guideline 401)

Acute toxicity estimate Inhalation - 4 h - 3,26 mg/l

(Calculation method)

LC50 Inhalation - Rat - female - 4 h - 3,181 mg/l (Guanidinium chloride)

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - male and female - > 2.000 mg/kg (Guanidinium chloride)

(OECD Test Guideline 402)

Skin corrosion/irritation: Skin - Rabbit (Guanidinium chloride)

Result: Skin irritation - 24 h (US-EPA)

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) (Guanidinium chloride)

Serious eye damage/eye irritation: Eyes - Rabbit (Guanidinium chloride)

Result: Causes serious eye irritation.

(OECD Test Guideline 405)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Respiratory or skin sensitization: Buehler Test - Guinea pig (Guanidinium chloride)

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity: Not mutagenic in Ames Test. (Guanidinium chloride)

Test Type: Ames test

(Guanidinium chloride)

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

SAFETY DATA SHEET

Cat# AUR10417, Guanidine Hydrochloride,
BioPureact™ Grade



Date: 9/01/2022

Result: negative

Test Type: Chromosome aberration test in vitro
(Guanidinium chloride)

Test system: Chinese hamster fibroblasts

Metabolic activation: without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Test Type: In vitro mammalian cell gene mutation test
(Guanidinium chloride)

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: No data available

Teratogenicity: no data available

Specific target organ toxicity – single exposure (GHS): no data available

Specific target organ toxicity – repeated exposure (GHS): no data available

Aspiration hazard: no data available

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

Additional information: RTECS: not available

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Results of PBT and vPvB assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects: No data available

SECTION 13: DISPOSAL CONSIDERATION

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the

SAFETY DATA SHEET

Cat# AUR10417, Guanidine Hydrochloride,
BioPureact™ Grade



Date: 9/01/2022

material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

DOT (US): Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

SECTION 15: REGULATORY INFORMATION

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

OSHA Hazards: Irritant

SARA 302 Components: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: Acute Health Hazard

Massachusetts Right To Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components: GUANIDINE HYDROCHLORIDE, BIOPUREACT™ GRADE, CAS-No. 50-01-1

New Jersey Right To Know Components: GUANIDINE HYDROCHLORIDE, BIOPUREACT™ GRADE, CAS-No. 50-01-1

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

EU regulations

Component	Risk Phrases	Safety Phrases
GUANIDINE HYDROCHLORIDE, BIOPUREACT™ GRADE	--	--

SECTION 16: OTHER INFORMATION

DISCLAIMER:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product regarding appropriate safety precautions. It does not represent any guarantee of the properties of the product. Aurora Medbiochem Co. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.