

B3 Buffer

Safety Data Sheet

According to 29CFR 1910.1200 OSHA Hazard Communication Standard
Issue date: 11/11/2022

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : B3 Buffer
Product code : 190478

1.2. Recommended use and restrictions on use

Recommended use : Scientific research and development
Restrictions on use : None known

1.3. Supplier

Covaris, LLC.
14 Gill St., Unit H
Woburn, MA 01801
USA
T +1 (781) 932-3959

1.4. Emergency telephone number

Emergency number : Chemtrec (800) 424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral) Category 4	H302	Harmful if swallowed
Skin corrosion/irritation Category 2	H315	Causes skin irritation
Eye irritation Category 2	H319	Causes serious eye irritation

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Warning

Hazard statements (GHS US) :

H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation

Precautionary statements (GHS US) :

P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves, eye protection.
P301+P312 - If swallowed: Call a doctor if you feel unwell.
P330 - Rinse mouth.
P302+P352 - If on skin: Wash with plenty of soap and water.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

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lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P501 - Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
guanidinium chloride, guanadine hydrochloride	CAS-No.: 50-01-1	36 – 50

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Move the affected person to fresh air. Get medical attention if symptoms occur.
First-aid measures after skin contact	: Gently wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: Causes eye irritation. Causes skin irritation. Harmful if swallowed.
Inhalation	: May cause minor irritation to the respiratory tract and to other mucous membranes.
Skin	: Causes skin irritation.
Eyes	: Eye irritation.
Ingestion	: May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3. Immediate medical attention and special treatment, if necessary

Not required.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: None.

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5.2. Specific hazards arising from the chemical

Fire hazard : This product is not classified as flammable or combustible.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Wear suitable protective clothing. Avoid contact with eyes, skin and clothing.

6.1.1. For non-emergency personnel

Emergency procedures : Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with eyes, skin and clothing. Wash hands with water and soap. Wear personal protective equipment. Ensure adequate ventilation.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : No special storage required.
Incompatible materials : None known.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

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guanidinium chloride, guanadine hydrochloride (50-01-1)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : No particular/specific measures required.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear impervious gloves.

Eye protection:

Use suitable eye protection

Skin and body protection:

None under normal conditions

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear, colorless liquid.
Color	: Colorless
Odor	: None
Odor threshold	: No data available
pH	: 8
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: 100 °C
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 0.992
Solubility	: Soluble in water. Water: 92.5 %
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

B3 Buffer	
ATE US (oral)	1000 mg/kg body weight
guanidinium chloride, guanadine hydrochloride (50-01-1)	
LD50 dermal rabbit	> 2000 mg/kg body weight <Missing Translation : Animal: rabbit, Guideline: other:EPA TS-792 Acute exposure, dermal toxicity. Health effects test guidelines, EPA, August 1982; EPA 560/6-82-001, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) />
ATE US (oral)	500 mg/kg body weight

Skin corrosion/irritation : Causes skin irritation.
pH: 8
Serious eye damage/irritation : Causes serious eye irritation.
pH: 8
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

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Viscosity, kinematic	: No data available
Symptoms/effects	: Causes eye irritation. Causes skin irritation. Harmful if swallowed.
Inhalation	: May cause minor irritation to the respiratory tract and to other mucous membranes.
Skin	: Causes skin irritation.
Eyes	: Eye irritation.
Ingestion	: May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

guanidinium chloride, guanadine hydrochloride (50-01-1)	
EC50 - Crustacea [1]	70.2 mg/l <Missing Translation : Test organisms (species): Daphnia magna />
EC50 72h - Algae [1]	11.8 mg/l <Missing Translation : Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) />
EC50 72h - Algae [2]	33.5 mg/l <Missing Translation : Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) />
NOEC (chronic)	2.9 mg/l <Missing Translation : Test organisms (species): Daphnia magna Duration: '21 d' />
NOEC chronic fish	≥ 181 mg/l <Missing Translation : Test organisms (species): Pimephales promelas Duration: '35 d' />

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste)	: Dispose of in accordance with applicable federal, state, and local regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			

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DOT	TDG	IMDG	IATA
14.2. Proper Shipping Name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

14.6. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

guanidinium chloride, guanadine hydrochloride	CAS-No. 50-01-1	36 – 50%
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15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

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All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory

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15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

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Full text of H-phrases	
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.