

BB3 Buffer

Safety Data Sheet

According to 29CFR 1910.1200 OSHA Hazard Communication Standard
Issue date: 9/1/2022

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : BB3 Buffer
Product code : 190542, 190560, 190613, 190762

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Scientific research and development
Recommended use : Scientific research and development
Restrictions on use : None known

1.3. Supplier

Covaris, LLC
14 Gill St., Unit
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

Hazardous to the aquatic environment – Acute Hazard Category 3 H402 Harmful to aquatic life
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard statements (GHS US) : H402 - Harmful to aquatic life
Precautionary statements (GHS US) : P273 - Avoid release to the environment.
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

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3.2. Mixtures

Name	Product identifier	%
Guanidiniumthiocyanat	CAS-No.: 593-84-0	10 – 30
Poly(ethylene) Oxide	CAS-No.: 25322-68-3	10 – 30

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 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. Get medical advice if skin irritation persists.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Get medical attention if irritation develops and persists.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects	: May cause slight temporary irritation.
Inhalation	: May cause minor irritation to the respiratory tract and to other mucous membranes.
Skin	: May cause slight irritation to the skin.
Eyes	: May cause minor 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.

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.
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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.
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6.1.1. For non-emergency personnel

No additional information available

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".
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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. Ensure adequate ventilation.
Hygiene measures	: 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

Poly(ethylene) Oxide (25322-68-3)

No additional information available

Guanidiniumthiocyanat (593-84-0)

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 suitable gloves

Eye protection:

Use suitable eye protection

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Skin and body protection:

None under normal conditions

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. In operations where exposure limits are exceeded or exposure levels are excessive, an approved respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

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	: 7.6
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	: No data available
Solubility	: No data available
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

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.

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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) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Poly(ethylene) Oxide (25322-68-3)

LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Guanidiniumthiocyanat (593-84-0)

LD50 oral rat	593 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 431 - 816
LD50 dermal rabbit	> 2000 mg/kg body weight Animal: rabbit, Guideline: other:
LC50 Inhalation - Rat (Dust/Mist)	> 0.853 mg/l Source: ECHA
ATE US (oral)	593 mg/kg body weight

Skin corrosion/irritation : Not classified
pH: 7.6

Guanidiniumthiocyanat (593-84-0)

pH	4.8 – 6 Source: sigma
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Serious eye damage/irritation : Not classified
pH: 7.6

Guanidiniumthiocyanat (593-84-0)

pH	4.8 – 6 Source: sigma
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Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified

Poly(ethylene) Oxide (25322-68-3)

LOAEL (animal/female, F0/P)	2000 mg/kg body weight Animal: rabbit, Animal sex: female
NOAEL (animal/female, F0/P)	60 mg/kg body weight Animal: rat, Animal sex: female

STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

Poly(ethylene) Oxide (25322-68-3)

LOAEL (oral,rat,90 days)	16000 mg/kg body weight
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Poly(ethylene) Oxide (25322-68-3)	
NOAEL (oral, rat, 90 days)	8000 mg/kg body weight
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	1 mg/l

Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects	: May cause slight temporary irritation.
Inhalation	: May cause minor irritation to the respiratory tract and to other mucous membranes.
Skin	: May cause slight irritation to the skin.
Eyes	: May cause minor 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.
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Poly(ethylene) Oxide (25322-68-3)	
LC50 - Fish [1]	100 mg/l
EC50 - Crustacea [1]	9096 mg/l
EC50 96h - Algae [1]	> 100 mg/l
ErC50 algae	15.91 mg/l
NOEC (chronic)	17475.27 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	13671.59 mg/l

Guanidiniumthiocyanat (593-84-0)	
LC50 - Fish [1]	≈ 89.1 mg/l Test organisms (species): Poecilia reticulata
EC50 - Crustacea [1]	42.4 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	130 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Guanidiniumthiocyanat (593-84-0)	
Partition coefficient n-octanol/water (Log Pow)	-1.11 Source: ECHA

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

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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			
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:

Guanidiniumthiocyanat	CAS-No. 593-84-0	10 – 30%
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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

Poly(ethylene) Oxide (25322-68-3)

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

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

According to 29CFR 1910.1200 OSHA Hazard Communication Standard

Full text of H-phrases

H402	Harmful to aquatic life
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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.