Safety Data Sheet

Cat. # BTNM-0062

pH Buffer, Yellow, pH 7.0, 500 mL

Size: 500 mL

pH Buffer, Yellow, pH 7.0, 500 mL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 09/01/2016 Revision date: 05/11/2017 Version: 7.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : pH Buffer, Yellow, pH 7.0, 500 mL

Product code : P294

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Geno Technology, Inc./ G-Biosciences
9800 Page Avenue
Saint Louis, 63132-1429 - United States
T 800-628-7730 - F 314-991-1504
technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number : Chemtrec **1-800-424-9300** (USA/Canada), **+1-703-527-3887** (Intl)

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 hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

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	Common Name (Synonyms)	Product identifier	%	GHS US classification
2-bromo-2-nitropropane-1,3-diol	1,3-propanediol, 2-bromo-2-nitro / 2-bromo-2-nitropropane-1,3-diol / 2-bromo-2-nitro-propane-1,3-diol / 2-bromo-2-nitropropanediol / beta-bromo-beta-nitrotrimethyleneglycol / bronidiol / bronocot / bronopol / bronopolu / bronosol / bronotak / MYACIDE CAS MICROBIOCIDE / onyxide 500	(CAS-No.) 52-51-7	0.5 - 2	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
2,4-hexadienoic acid	(2-butenylidene)acetic acid / (E,E)-1,3-pentadiene-1-carboxylic acid / 1,3-pentadiene-1-carboxylic acid / 1,3-pentadiene-1-carboxylic acid,(E,E)- / 2,4-hexadienic acid / 2,4-hexadienoic acid, (E,E)- / 2,4-hexadienoic acid, trans,trans- / 2E,4E-hexadienoic acid / 2-propenylacrylic acid / acetic acid, (2-butylidene)- / acetic acid, crotylidene- / aflaban / alpha-trans-gamma-trans-sorbic acid / crotylidene acetic acid / E,E-2,4-hexadienoic acid / E200 / hexa-2,4-dienoic acid / hexadienic acid / hexadienoic acid / hexadienoic acid, 2E,4E- / hostasil S / PANOSORB / sorbic acid / sorbic acid, trans,trans- / sorbistat / trans,trans-2,4-hexadienoic acid / trans,trans-sorbic acid	(CAS-No.) 110-44-1	0.05 - 0.5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

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 : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

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

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

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

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

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 : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

pH Buffer, Yellow, pH 7.0, 500 mL
No additional information available

2-bromo-2-nitropropane-1,3-diol (52-51-7)
No additional information available

2,4-hexadienoic acid (110-44-1)
No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

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
Color	:	No data available
Odor	:	No data available
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	Not applicable
Freezing point	:	No data available
Boiling point	:	No data available
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
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.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Hazardous decomposition products.

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

2-bromo-2-nitropropane-1,3-diol (52-51-7)	
LD50 oral rat	305 mg/kg body weight (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	1600 mg/kg (24 h, Rat, Male, Experimental value, Dermal, 14 day(s))
ATE US (oral)	305 mg/kg body weight
ATE US (dermal)	1600 mg/kg body weight

2,4-hexadienoic acid (110-44-1)	
LD50 oral rat	10500 mg/kg (Rat, Oral)
ATE US (oral)	10500 mg/kg body weight

Skin corrosion/irritation	:	Not classified
Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitization	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
Specific target organ toxicity – single exposure	:	Not classified

2-bromo-2-nitropropane-1,3-diol (52-51-7)	
Specific target organ toxicity – single exposure	May cause respiratory irritation.

2,4-hexadienoic acid (110-44-1)	
Specific target organ toxicity – single exposure	May cause respiratory irritation.

Specific target organ toxicity – repeated exposure	:	Not classified

Aspiration hazard : Not classified
Viscosity, kinematic : No data available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life.

2-bromo-2-nitropropane-1,3-diol (52-51-7)	
LC50 fish 1	35.7 mg/l (EPA OPP 72-1, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	1.4 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	0.25 mg/l (ISO 10253, 72 h, Skeletonema costatum, Static system, Salt water, Experimental value, GLP)

2,4-hexadienoic acid (110-44-1)	
LC50 fish 1	1000 - 1500 mg/l (48 h, Leuciscus idus)

12.2. Persistence and degradability

2-bromo-2-nitropropane-1,3-diol (52-51-7)	
Persistence and degradability	Readily biodegradable in water.

2,4-hexadienoic acid (110-44-1)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.37 g O_2/g substance
Chemical oxygen demand (COD)	1 g O_2/g substance
ThOD	1.99 g O_2/g substance
BOD (% of ThOD)	0.185

12.3. Bioaccumulative potential

2-bromo-2-nitropropane-1,3-diol (52-51-7)	
BCF other aquatic organisms 1	3.16 (BCFWIN, QSAR)
Log Pow	0.18 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

2,4-hexadienoic acid (110-44-1)	
BCF other aquatic organisms 1	6 (Estimated value)
Log Pow	0.96 - 1.33
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

2-bromo-2-nitropropane-1,3-diol (52-51-7)	
Surface tension	72 mN/m (20 °C, 1 g/l, EU Method A.5: Surface tension)
Log Koc	1.57 - 3.15 (log Koc, Calculated value)
Ecology - soil	No straightforward conclusion can be drawn based upon the available numerical values.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Waste treatment methods.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

2-bromo-2-nitropropane-1,3-diol (52-51-7)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

2,4-hexadienoic acid (110-44-1)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

EU-Regulations

National regulations

No additional information available

15.3. US State regulations

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 05/11/2017

Full text of H-phrases:

H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H402	Harmful to aquatic life

SDS US (GHS HazCom 2012)

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.