

Buffers

Safety Data Sheet

SECTION 1: Identification

1.1. Identification

Product name : Buffers
Other means of identification : RNA Ligation Buffer, ssDNA Ligation Buffer, Input PNK Buffer, IP PNK Buffer, RT Buffer, 2x Western Buffer, PSP Buffer, Proteinase, 25x No Salt Buffer, High Salt Wash, Beads Binding Buffer, Bead Elution Buffer, Library Elution Buffer, eCLIP Lysis Buffer

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

Use of the substance/mixture : Research and Development

1.3. Details of the supplier of the safety data sheet

Eclipse Bioinnovations, Inc.
6185 Cornerstone Ct.
San Diego, CA 92121

1.4. Emergency telephone number

Emergency number : ChemTel 1-800-255-3924

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute Tox. 4 (Oral) H302
Acute Tox. 4 (Inhalation:dust,mist) H332
Skin Irrit. 2 H315
Eye Irrit. 2 H319

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

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H302+H332 - Harmful if swallowed or if inhaled
H315 - Causes skin irritation
H319 - Causes serious eye irritation

Precautionary statements (GHS-US) :

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P264 - Wash thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301+P312 - If swallowed: Call a poison center/doctor if you feel unwell
P302+P352 - If on skin: Wash with plenty of water
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a poison center/doctor if you feel unwell
P330 - Rinse mouth
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

No additional information available

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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	%	GHS-US classification
Water	(CAS-No.) 7732-18-5	Proprietary	Not classified
Thiocyanic acid, compound with guanidine (1:1)	(CAS-No.) 593-84-0	Proprietary	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319
Glycerin	(CAS-No.) 56-81-5	Proprietary	Not classified
2,3-Butanediol, 1,4-dimercapto-, (R*,R*)-	(CAS-No.) 3483-12-3	Proprietary	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Sulfuric acid, monododecyl ester, lithium salt	(CAS-No.) 2044-56-6	Proprietary	Flam. Sol. 2, H228 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
Dimethyl sulfoxide	(CAS-No.) 67-68-5	Proprietary	Flam. Liq. 4, H227
Disodium EDTA	(CAS-No.) 139-33-3	Proprietary	Not classified
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	(CAS-No.) 9002-93-1	Proprietary	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Aquatic Acute 2, H401 Aquatic Chronic 2, H411

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 to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- First-aid measures after skin contact : Flush with water for at least 15 minutes. Seek medical attention if irritation develops or persists.
- First-aid measures after eye contact : Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists.
- First-aid measures after ingestion : Do NOT induce vomiting. Seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : Harmful if inhaled.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes serious eye irritation.
- Symptoms/injuries after ingestion : Harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

- Fire hazard : None known.
- Explosion hazard : None known.

5.3. Advice for firefighters

- Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

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6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Stop the flow of material, if this is without risk.
Methods for cleaning up : Confine spill and soak up with absorbent. Place in an approved container and dispose in accordance with local, state and federal regulations.

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 thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Store in dry, cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Water (7732-18-5)		
Not applicable		
Dimethyl sulfoxide (67-68-5)		
AIHA	WEEL TWA (ppm)	250 ppm
2,3-Butanediol, 1,4-dimercapto-, (R*,R*)- (3483-12-3)		
Not applicable		
Glycerin (56-81-5)		
OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (mist, total particulate) 5 mg/m ³ (mist, respirable fraction)
Sulfuric acid, monododecyl ester, lithium salt (2044-56-6)		
Not applicable		
Disodium EDTA (139-33-3)		
Not applicable		
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy- (9002-93-1)		
Not applicable		
Thiocyanic acid, compound with guanidine (1:1) (593-84-0)		
Not applicable		

8.2. Exposure controls

Appropriate engineering controls : Local exhaust and general ventilation must be adequate to meet exposure standards.
Hand protection : Use impervious gloves such as neoprene, nitrile, or rubber for hand protection.
Eye protection : Safety glasses.
Skin and body protection : Wear suitable working clothes.
Respiratory protection : If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Clear.
Color : Colorless
Odor : odorless

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Odor threshold	: No data available
pH	: 6.5 - 8
Melting point	: No data available
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)	: No data available
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

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Not determined.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Buffers	
ATE US (oral)	836.431 mg/kg body weight
ATE US (dust, mist)	3.03 mg/l/4h
Water (7732-18-5)	
LD50 oral rat	> 90 ml/kg
Dimethyl sulfoxide (67-68-5)	
LD50 oral rat	28300 mg/kg
LC50 inhalation rat (mg/l)	> 5.33 mg/l/4h
ATE US (oral)	14500 mg/kg body weight
2,3-Butanediol, 1,4-dimercapto-, (R*,R*)- (3483-12-3)	
ATE US (oral)	500 mg/kg body weight

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Glycerin (56-81-5)	
LD50 oral rat	12600 mg/kg
LD50 dermal rabbit	> 10 g/kg
LC50 inhalation rat (mg/l)	> 570 mg/m ³ (Exposure time: 1 h)
ATE US (oral)	12600 mg/kg

Disodium EDTA (139-33-3)	
LD50 oral rat	2 g/kg

Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy- (9002-93-1)	
LD50 oral rat	1800 mg/kg
ATE US (oral)	1800 mg/kg body weight

Thiocyanic acid, compound with guanidine (1:1) (593-84-0)	
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation. pH: 6.5 - 8
Serious eye damage/irritation	: Causes serious eye irritation. pH: 6.5 - 8
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
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Dimethyl sulfoxide (67-68-5)	
LC50 fish 1	34000 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
LC50 fish 2	33 - 37 g/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

Glycerin (56-81-5)	
LC50 fish 1	51 - 57 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

Disodium EDTA (139-33-3)	
LC50 fish 1	320 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [semi-static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Dimethyl sulfoxide (67-68-5)	
Log Pow	-2.03

Glycerin (56-81-5)	
BCF fish 1	(no bioaccumulation)
Log Pow	-1.76

12.4. Mobility in soil

No additional information available

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12.5. Other adverse effects

Effect on the ozone layer : No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Dimethyl sulfoxide (67-68-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

2,3-Butanediol, 1,4-dimercapto-, (R*,R*)- (3483-12-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Glycerin (56-81-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sulfuric acid, monododecyl ester, lithium salt (2044-56-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Disodium EDTA (139-33-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy- (9002-93-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag

XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e, Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).

Thiocyanic acid, compound with guanidine (1:1) (593-84-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. US State regulations

Dimethyl sulfoxide (67-68-5)

U.S. - New Jersey - Right to Know Hazardous Substance List

Glycerin (56-81-5)

U.S. - Massachusetts - Right To Know List
U.S. - Minnesota - Hazardous Substance List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

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SECTION 16: Other information

Full text of H-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 4	Flammable liquids Category 4
Flam. Sol. 2	Flammable solids Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H227	Combustible liquid
H228	Flammable solid
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

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