



G-Biosciences, St Louis, MO, USA | 1-800-628-7730 | 1-314-991-6034 | technical@GBiosciences.com

A Geno Technology, Inc. (USA) brand name

Safety Data Sheet

Cat. # 786-91

RAB Buffer (Reassembly Buffer)

Size: 250ml



think proteins! think G-Biosciences!

www.GBiosciences.com



RAB Buffer

Safety Data Sheet

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

Date of issue: 11/15/2013

Revision date: 05/11/2017

Version: 7.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : RAB Buffer
Product code : 399A

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

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

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-morpholinoethanesulfonic acid, monohydrate	2-(N-morpholino)ethanesulfonic acid / 2-morpholinoethanesulfonic acid monohydrate / 4-morpholineethanesulfonic acid monohydrate	(CAS-No.) 145224-94-8	2 - 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

RAB Buffer

Safety Data Sheet

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

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
sodium fluoride	alcoa sodium fluoride / antibulit / caribium / cavi-trol / chemifluor / credo / disodium difluoride / duraphat / F1-tabs / FDA 0101 / floridine / florocid / flozenges / fluoral / fluoride of sodium / fluorident / fluoridine / fluorigard / fluorineed / fluorinse / fluoritab / fluorocid / fluor-O-kote / fluoral / fluoros / flura / flura drops / flura-gel / flura-loz / flurcare / flursol / fungol B / GEL II / geluton / gleem / iradicav / karidium / karigel / karirrinse / lea-cov / lemoflur / luride / luride lozi-tabs / luride-SF / Na frinse / nafeen / nafpak / nat. villiaumite / Natriumfluorid / nufluor / ossalin / ossin / osteofluor / pediaflor / pedident / pennwhite / pergantene / phos-flur / point two / predent / rafluor / rescue squad / Roach salt / sodium fluoride / sodium fluoride (NaF) / sodium fluoride cyclic dimer / sodium fluoride, solid / sodium hydrofluoride / sodium monofluoride / SO-Flo / stay-flo / studafluor / super-dent / T-fluoride / thera-flur / thera-flur-N / trisodium trifluoride / villiaumite (=sodium fluoride) / villiaumite (=sodium fluoride), natural / williaumite (=sodium fluoride) / zymafluor	(CAS-No.) 7681-49-4	0.05 - 0.5	Acute Tox. 3 (Oral), H301 Skin Irrit. 2, H315 Eye Irrit. 2, H319

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".

RAB Buffer

Safety Data Sheet

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

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 : 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.
Storage temperature : 4 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

RAB Buffer	
No additional information available	
2-morpholinoethanesulfonic acid, monohydrate (145224-94-8)	
No additional information available	
sodium fluoride (7681-49-4)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (mg/m³)	2.5 mg/m³

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

RAB Buffer

Safety Data Sheet

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

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

sodium fluoride (7681-49-4)	
LD50 oral rat	52 mg/kg (Rat, Oral)
ATE US (oral)	100 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
--	------------------

RAB Buffer

Safety Data Sheet

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

2-morpholinoethanesulfonic acid, monohydrate (145224-94-8)

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

sodium fluoride (7681-49-4)

LC50 fish 1	> 530 mg/l (96 h, <i>Lepomis macrochirus</i>)
-------------	--

EC50 Daphnia 1	98 mg/l (48 h, <i>Daphnia magna</i>)
----------------	---------------------------------------

12.2. Persistence and degradability

2-morpholinoethanesulfonic acid, monohydrate (145224-94-8)

Persistence and degradability	Biodegradability in water: no data available.
-------------------------------	---

sodium fluoride (7681-49-4)

Persistence and degradability	Biodegradability: not applicable.
-------------------------------	-----------------------------------

Chemical oxygen demand (COD)	Not applicable
------------------------------	----------------

ThOD	Not applicable
------	----------------

BOD (% of ThOD)	Not applicable
-----------------	----------------

12.3. Bioaccumulative potential

2-morpholinoethanesulfonic acid, monohydrate (145224-94-8)

Bioaccumulative potential	No bioaccumulation data available.
---------------------------	------------------------------------

sodium fluoride (7681-49-4)

BCF fish 1	2.3 (<i>Salmo gairdneri</i>)
------------	--------------------------------

Bioaccumulative potential	Not bioaccumulative.
---------------------------	----------------------

12.4. Mobility in soil

sodium fluoride (7681-49-4)

Ecology - soil	Toxic to flora.
----------------	-----------------

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 regulated

Transportation of Dangerous Goods

Transport by sea

Not regulated

RAB Buffer

Safety Data Sheet

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

Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

2-morpholinoethanesulfonic acid, monohydrate (145224-94-8)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

sodium fluoride (7681-49-4)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ

1000 lb

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:

H301	Toxic if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

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.