



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. # 786-546

Imodulin Binding/ Wash Buffer (50mM Tris.HCl (pH7.5), 200mM NaCl, 2mM CaCl₂)

Size: 100ml



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Calmodulin Binding/ Wash Buffer

Safety Data Sheet

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

Date of issue: 01/01/2017

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Version: 7.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Calmodulin Binding/ Wash Buffer
Product code : 007C

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
sodium chloride	AKZO,BROXO 6/15 / AXAL / BRINE / BROXO 6/15 / common salt / dendritis / evaporated / extra fine 200 salt / extra fine 325 salt / halite / HG blending / iron-fighter salt / purex / purified brine / road salt / rock salt / saline / salt / sea salt / sodium chloride / sodium chloride (NaCl) / solar salt / solsel / sterling (=sodium chloride) / table salt / top flake / USP sodiumchloride / vacuum salt, electrolysis quality / white crystal	(CAS-No.) 7647-14-5	<= 2	Not classified
calcium chloride, dihydrate	cal plus (=calcium chloride, dihydrate) / calcium chloride, dihydrate / calcium chloride-2-hydrate / calcium dicloride, dihydrate / replenisher(calcium) / sinjarite	(CAS-No.) 10035-04-8	<= 2	Eye Irrit. 2, H319

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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	: If you feel unwell, seek medical advice.
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)

Symptoms/effects after inhalation	: AFTER INHALATION OF DUST/MIST: Dry/sore throat. Coughing. Irritation of the nasal mucous membranes.
Symptoms/effects after skin contact	: No effects known.
Symptoms/effects after eye contact	: Slight irritation. Redness of the eye tissue.
Symptoms/effects after ingestion	: AFTER INGESTION OF HIGH QUANTITIES: Nausea. Vomiting. Irritation of the gastric/intestinal mucosa. Loss of appetite. Tremor. Muscular pain. Mental confusion. Disturbances of consciousness.
Symptoms/effects upon intravenous administration	: No effects known.
Chronic symptoms	: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation. Coughing. Conjunctivitis. Affection of the nasal septum. High arterial pressure.

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.
Unsuitable extinguishing media	: No unsuitable extinguishing media known.

5.2. Specific hazards arising from the chemical

Fire hazard	: DIRECT FIRE HAZARD: Non combustible.
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5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Dilute toxic gases with water spray.
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

Protective equipment	: Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.
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".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.
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.

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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 : RT

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available
sodium chloride (7647-14-5)
No additional information available
calcium chloride, dihydrate (10035-04-8)
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 : Clear
Odor : No data available
Odor threshold : No data available
pH : 7.5
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

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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 chloride (7647-14-5)	
LD50 oral rat	> 3980 mg/kg body weight (Rat, Experimental value, 20% aqueous solution, Oral)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Experimental value, Dermal)
LC50 inhalation rat (mg/l)	> 42 mg/l air (1 h, Rat, Male, Experimental value, 20% aqueous solution, Inhalation (aerosol))

calcium chloride, dihydrate (10035-04-8)	
LD50 oral rat	2301 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	> 5000 mg/kg body weight (Other, 24 h, Rabbit, Male / female, Experimental value, Dermal)
ATE US (oral)	2301 mg/kg body weight

Skin corrosion/irritation	: Not classified pH: 7.5
Serious eye damage/irritation	: Not classified pH: 7.5
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

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Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects after inhalation	: AFTER INHALATION OF DUST/MIST: Dry/sore throat. Coughing. Irritation of the nasal mucous membranes.
Symptoms/effects after skin contact	: No effects known.
Symptoms/effects after eye contact	: Slight irritation. Redness of the eye tissue.
Symptoms/effects after ingestion	: AFTER INGESTION OF HIGH QUANTITIES: Nausea. Vomiting. Irritation of the gastric/intestinal mucosa. Loss of appetite. Tremor. Muscular pain. Mental confusion. Disturbances of consciousness.
Symptoms/effects upon intravenous administration	: No effects known.
Chronic symptoms	: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation. Coughing. Conjunctivitis. Affection of the nasal septum. High arterial pressure.

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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sodium chloride (7647-14-5)

LC50 fish 1	5840 mg/l (ASTM, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value)
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calcium chloride, dihydrate (10035-04-8)

LC50 fish 1	10650 mg/l (96 h, Lepomis macrochirus, Literature study, Anhydrous form)
EC50 Daphnia 1	144 mg/l (48 h, Daphnia magna, Literature study, Anhydrous form)

12.2. Persistence and degradability

sodium chloride (7647-14-5)

Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

calcium chloride, dihydrate (10035-04-8)

Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

sodium chloride (7647-14-5)

Log Pow	-3 (Calculated)
Bioaccumulative potential	Not bioaccumulative.

calcium chloride, dihydrate (10035-04-8)

Bioaccumulative potential	Not bioaccumulative.
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12.4. Mobility in soil

sodium chloride (7647-14-5)

Surface tension	73.03 mN/m (23 °C, 14.5 g/l)
Ecology - soil	No (test)data on mobility of the substance available.

calcium chloride, dihydrate (10035-04-8)

Ecology - soil	No (test)data on mobility of the substance available.
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12.5. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Disposal methods

- Waste treatment methods : Waste treatment methods.
- Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Immobilize the toxic or harmful components. Precipitate/make insoluble. Remove to an authorized dump (Class I). Treat using the best available techniques before discharge into drains or the aquatic environment.
- Additional information : Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

sodium chloride (7647-14-5)

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

calcium chloride, dihydrate (10035-04-8)

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

15.2. International regulations

CANADA

sodium chloride (7647-14-5)

Listed on the Canadian DSL (Domestic Substances List)

calcium chloride, dihydrate (10035-04-8)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EU-Regulations

National regulations

No additional information available

15.3. US State regulations

SECTION 16: Other information

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Full text of H-phrases:

H319	Causes serious eye irritation
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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.