SAFETY DATA SHEET

Glycan Buffer A

Section 1. Identification			
GHS product identifier	: Glycan Buffer A		
Other means of identification	: Not available.		
Part number/Product code	: 18-1141		
Product description	: Glycan Buffer A		
Product type	: Liquid.		
Relevant identified uses of t	he substance or mixture and uses advised against		
Identified uses	: Laboratory use only (research).		
Supplier's details	: Molecular Devices, LLC dba ForteBio 47661 Fremont Boulevard Fremont, CA 94538 USA Tel: 650-322-1360 Fax: 650-322-1370 Website: www.fortebio.com		
e-mail address of person responsible for this SDS	: Linda.Lewis@moldev.com		
Emergency telephone number (with hours of operation)	: CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887 24 hours/day, 7 days/week		
Section 2. Hazard	s identification		
OSHA/HCS status	: While this material is not considered hazardous by the OSHA Hazard Communication		

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OSHA/HCS status	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	: Not classified.
GHS label elements	
Signal word	: No signal word.
Hazard statements	: No known significant effects or critical hazards.
Precautionary statements	
Prevention	: Not applicable.
Response	: Not applicable.
Storage	: Not applicable.
Disposal	: Not applicable.
Hazards not otherwise classified	: None known.



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Section 3. Composition/information on ingredients

Substance/mixture

Other means of identification

- : Mixture
 - : Not available.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	 Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	 Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.
Ingestion	: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effe	<u>cts</u>		
Eye contact	: No known significant effects or critical hazards.		
Inhalation	: No known significant effects or critical hazards.		
Skin contact	: No known significant effects or critical hazards.		
Ingestion	: No known significant effects or critical hazards.		
Over-exposure signs/symp	<u>itoms</u>		
Eye contact	: No known significant effects or critical hazards.		
Inhalation	: No known significant effects or critical hazards.		
Skin contact	: No known significant effects or critical hazards.		
Ingestion	: No known significant effects or critical hazards.		
Indication of immediate medical attention and special treatment needed, if necessary			
Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.		
Specific treatments	: No specific treatment.		
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.		

See toxicological information (Section 11)



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Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	: No specific fire or explosion hazard.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
Special protective actions for fire-fighters	 Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.	
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".	
Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).	
Methods and materials for containment and cleaning up			
Spill		Stop leak if without risk Move containers from spill area. Prevent entry into sewers	

Spill
 Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	 Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.



Control parameters

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Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Occupational exposure limits	
None.	
Appropriate engineering controls	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.
Individual protection measure	<u>s</u>
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance	
Physical state	: Liquid. [Clear.]
Color	: Clear.
Odor	: Not available.
Odor threshold	: Not available.
рН	: 7.4
Melting point	: 0°C (32°F)



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Section 9. Physical and chemical properties

Boiling point	1	100°C (212°F)
Flash point	1	Not applicable.
Evaporation rate	1	1 (Water = 1)
Flammability (solid, gas)	1	Not available.
Lower and upper explosive (flammable) limits	:	Not available.
Vapor pressure	1	Not available.
Vapor density	1	Not available.
Relative density	1	1
Solubility	1	Not applicable.
Partition coefficient: n- octanol/water	:	Not available.
Auto-ignition temperature	1	Not available.
Decomposition temperature	:	Not available.
Viscosity	:	Not available.
Flow time (ISO 2431)	:	Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects Acute toxicity There is no data available. Irritation/Corrosion There is no data available. Sensitization There is no data available. Mutagenicity There is no data available. Carcinogenicity There is no data available. Reproductive toxicity Page: 5/9



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Section 11. Toxicological information			
There is no data available.			
Teratogenicity			
There is no data available.			
Specific target organ toxicit	t <u>y (single exposure)</u>		
There is no data available.			
Specific target organ toxicit	t <u>y (repeated exposure)</u>		
There is no data available.			
Aspiration hazard			
There is no data available.			
Information on the likely routes of exposure	: Dermal contact. Eye contact. Inhalation. Ingestion.		
Potential acute health effects	2		
Eye contact	: No known significant effects or critical hazards.		
Inhalation	: No known significant effects or critical hazards.		
Skin contact	: No known significant effects or critical hazards.		
Ingestion	: No known significant effects or critical hazards.		
Symptoms related to the phy	vsical, chemical and toxicological characteristics		
Eye contact	: No known significant effects or critical hazards.		
Inhalation	: No known significant effects or critical hazards.		
Skin contact	: No known significant effects or critical hazards.		
Ingestion	: No known significant effects or critical hazards.		
Delayed and immediate effect	ts and also chronic effects from short and long term exposure		
<u>Short term exposure</u>			
Potential immediate effects	: No known significant effects or critical hazards.		
Potential delayed effects	: No known significant effects or critical hazards.		
<u>Long term exposure</u>			
Potential immediate effects	: No known significant effects or critical hazards.		
Potential delayed effects	: No known significant effects or critical hazards.		
Potential chronic health eff	ects		
General	: No known significant effects or critical hazards.		
Carcinogenicity	: No known significant effects or critical hazards.		
Mutagenicity	: No known significant effects or critical hazards.		
Teratogenicity	: No known significant effects or critical hazards.		
Developmental effects	: No known significant effects or critical hazards.		
Fertility effects	: No known significant effects or critical hazards.		

Numerical measures of toxicity

Acute toxicity estimates

There is no data available.



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Section 12. Ecological information

Not likely to pose a serious ecological hazard due to the size of the product and the quantity of material present.

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Toxicity

There is no data available.

Persistence and degradability

There is no data available.

Bioaccumulative potential

There is no data available.

Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

- **Disposal methods**
- : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	ΙΑΤΑ
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

AERG : Not applicable



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Section 14. Transport information

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations	: United States inventory (TSCA 8b): All components are listed or exempted.
	Clean Water Act (CWA) 311: Disodium hydrogenorthophosphate; Hydrochloric acid
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: Listed
Clean Air Act Section 602 Class I Substances	: Not listed
Clean Air Act Section 602 Class II Substances	: Not listed
DEA List I Chemicals (Precursor Chemicals)	: Not listed
DEA List II Chemicals (Essential Chemicals)	: Not listed
<u>SARA 302/304</u>	

Composition/information on ingredients

			SARA 302 TPQ		SARA 304 RQ	
Name		EHS	(lbs)	(gallons)	(lbs)	(gallons)
Hydrochloric acid		Yes.	500	-	5000	-
SARA 304 RQ	: 333333333.3 lbs / 151333	333.3 kg	[39978037	7.2 gal / 151333	333.3 L]	
<u>SARA 311/312</u>						
Classification	: Not applicable.					
<u>SARA 313</u>						
There is no data available.						
tate regulations						
Massachusetts	: None of the components are listed.					
New York	: None of the components are listed.					
New Jersey	: None of the components a	re listed.				
Pennsylvania	: None of the components are listed.					

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.



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Section 16. Other information

Procedure used to derive the classification

	Justification		
Not classified.			
History			
Date of issue mm/dd/yyyy	: 03/15/2019		
Date of previous issue	: Not applicable		
Version	: 1		
Prepared by	: KMK Regulatory Services Inc.		
Key to abbreviations	IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coe	te Toxicity Estimate concentration Factor bally Harmonized System of Classification and Labelling of Chemicals ernational Air Transport Association mediate Bulk Container rernational Maritime Dangerous Goods logarithm of the octanol/water partition coefficient = International Convention for the Prevention of Pollution From Ships, 1973 as y the Protocol of 1978. ("Marpol" = marine pollution)	

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries,

assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.