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## Material Safety Data Sheet

### Section 1. Identification of the Substance/Mixture

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**Product name:** Binding Buffer

#### Manufacturer/Supplier identification

ABP Biosciences  
7040 Virginia Manor Road, Beltsville, MD 20705, USA  
Web: [www.abpbio.com](http://www.abpbio.com)  
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**For research use only. Not for use in diagnosis procedures**

### Section 2. Hazards Identification

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#### GHS Classification

**Signal Word:** Warning



#### Hazard pictograms:

#### Health hazards:

Acute oral toxicity	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/irritation	Category 2

**Physical hazards:** Not classified

**Environmental hazards:** Not classified

**Hazard Statements:**  
H319 Causes serious eye irritation.  
H302 Harmful if swallowed.  
H315 Causes skin irritation.

#### Precautionary Statements

**Prevention:**  
P264 - Wash hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection

**Response:**  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P330 - Rinse mouth.  
P362 + P364 - Take off all contaminated clothing and wash it

**Storage:** before reuse.  
**Disposal:** Not Applicable.  
P501 - Dispose of contents/container to an approved waste disposal plant.  
**Other hazards:** Not Applicable.

**HMIS**

Health	1
Flammability	0
Reactivity	0

**Section 3. Composition/Information on Ingredients**

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Substance name: Binding Buffer

Chemical Name	CAS No.	Weight-%
Guanidine hydrochloride	50-01-1	30-60

We recommend handling all chemicals with caution.

**Section 4. First Aid Measures**

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**Description of first aid measures**

**Skin contact** Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Immediate medical attention is required.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

**Ingestion** Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Get medical attention if symptoms occur.

**Inhalation** Remove to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician.

**Notes to Physician** Treat symptomatically.

**Most important symptoms and effects, both acute and delayed**

H302 - Harmful if swallowed. H315 - Causes skin irritation. H319 - Causes serious eye irritation.

**Indication of any immediate medical attention and special treatment needed**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

**Section 5. Fire-Fighting Measures**

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**Extinguishing media**

**Suitable extinguishing media** Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical.  
**Unsuitable extinguishing media** No information available.

**Special hazards arising from the substance or mixture**



Not known

**Protective equipment and precautions for firefighters**

Standard procedure for chemical fires.

**Section 6. Accidental Release Measures**

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**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation  
Always wear recommended Personal Protective Equipment  
Use personal protection equipment  
See section 8 for more information

**Environmental precautions**

No special environmental precautions required.

**Methods and material for containment and cleaning up**

Take up mechanically, placing in appropriate containers for disposal.

**Reference to other sections**

See section 8 for more information.

**Section 7. Handling and Storage**

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**Precautions for safe handling**

Use personal protective equipment as required. No special handling advices are necessary.

**Conditions for safe storage, including any incompatibilities**

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

**Specific end use(s)**

For research use only.

**Section 8. Exposure Controls/Personal Protection**

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**Control parameters**

**Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Hazardous components without workplace control parameters**

Ingredients	CAS No.
Guanidine hydrochloride	50-01-1

**Engineering Measures**

Ensure adequate ventilation, especially in confined areas.

**Exposure controls**

**Personal Protective Equipment**

**Respiratory protection**

In case of insufficient ventilation wear respirators and components tested and approved under appropriate government

	standards.
<b>Hand protection</b>	Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.
<b>Eye protection</b>	Tight sealing safety goggles.
<b>Skin and Body Protection</b>	Wear suitable protective clothing.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice

#### **Environmental exposure controls**

Prevent product from entering drains. Do not allow material to contaminate ground water system.

## **Section 9. Physical and Chemical Properties**

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### **Information on basic physical and chemical properties**

<b>Appearance</b>	liquid
<b>Odor</b>	No data
<b>Odor Threshold</b>	No data
<b>Melting point / melting range</b>	°C No data
<b>Boiling point / boiling range</b>	°C No data
<b>Flash point</b>	°C No data
<b>Autoignition Temperature</b>	°C No data
<b>Decomposition temperature</b>	°C No data
<b>Evaporation rate</b>	No data
<b>Flammability (solid, gas)</b>	No data
<b>Upper explosion limit</b>	No data
<b>Lower explosion limit</b>	No data
<b>Vapor Pressure</b>	No data
<b>Vapor density</b>	No data
<b>Relative density</b>	No data
<b>Specific gravity</b>	No data
<b>Solubility</b>	No data
<b>Partition coefficient:</b>	
<b>n-octanol/water</b>	No data
<b>Viscosity</b>	No data
<b>Explosive properties</b>	No data
<b>Oxidizing properties</b>	No data
<b>Other information</b>	No data.

## **Section 10. Stability and Reactivity**

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<b>Reactivity</b>	No decomposition if stored and applied as directed.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous</b>	Hazardous reaction has not been reported.



**reactions**

- Conditions to avoid** No information available.
- Incompatible materials** No dangerous reaction known under conditions of normal use.
- Hazardous decomposition products** No data available

**Section 11. Toxicological information**

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**Information on toxicological effects**

Chemical Name	ID50 (oral, rat/mouse)	ID50 (dermal, rat/rabbit)	ID50 (inhalation, rat/mouse)
Guanidine hydrochloride	475mg/kg	>2000 mg/kg	No data available

**Principal Routes of Exposure**

- Irritation** Serious Eye Damage / Eye Irritation
- Corrosivity** Data are conclusive but insufficient for classification
- Sensitization** Data are conclusive but insufficient for classification
- Specific target organ toxicity (STOT)–single exposure** Data are conclusive but insufficient for classification
- Specific target organ toxicity (STOT)–repeated exposure** Data are conclusive but insufficient for classification
- Carcinogenicity** Data are conclusive but insufficient for classification
- Germ cell mutagenicity** Data are conclusive but insufficient for classification
- Reproductive toxicity** Data are conclusive but insufficient for classification
- Aspiration hazard** Data are conclusive but insufficient for classification

**Section 12. Ecological Information**

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**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

**Persistence and degradability** No information available.

**Bioaccumulative potential** No information available.

**Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other adverse effects** No information available.

**Section 13. Disposal considerations**

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**Waste treatment methods**

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in

according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations. Do not empty into drains. Do not dispose of waste into sewer.

## **Section 14. Transport Information**

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### **IATA / ADR / DOT-US / IMDG**

Not regulated in the meaning of transport regulations

**UN number** Not Applicable

**UN proper shipping name** Not Applicable

**Transport hazard class(es)** Not Applicable

**Packing group** Not Applicable

**Environmental hazards** Not Applicable

**Special precautions for user** Not Applicable

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not Applicable.

## **Section 15. Regulatory Information**

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### **US Federal Regulations**

#### **SARA 313**

This product is not regulated by SARA.

#### **Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain HAPs

### **US State Regulations**

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

#### **WHMIS Hazard Class**

D2B - Toxic materials

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

## **Section 16. Other Information**

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For research use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.



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**End of Material Safety Data Sheet**