Safety Data Sheet: BD001

Version: 03 **Manufacturer**: Azora Biosciences **Phone:** +64 21 030 4004

1. Product and Company Information

Product Name:	BD001
Product Number / Brand:	BD001 / Azora Biosciences
Other Names:	Binding Buffer
Recommended Use:	For research and laboratory use only. Not for household or consumer use.

New Zealand

Manufacturer / Distributor:	Azora Biosciences ***Note:*** *Azora Biosciences is trading under MJ Biosciences Limited.*
Address:	10 Bisley Road, Ruakura Hamilton 3214
Telephone:	+64 21 030 4004
Poisons Centre:	0800 764 766 (0800 POISON), 24 hours
Emergency Services:	111

Australia

Manufacturer / Importer:	Azora Biosciences Australia Pty. Ltd.
Address:	45 Burnet Circuit, Baringa, Queensland 4551
Telephone:	+61 754 804252
Australian Poisons Centre:	13 11 26, 24 hours
Emergency Services:	000

2. Hazard(s) Identification

GHS Classification:

New Zealand

Acute toxicity – oral: Category 4
Acute toxicity – dermal: Category 3
Skin corrosion/irritation: Category 1C
Serious eye damage/eye irritation: Category 1

Australia

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

Hazard pictograms

New Zealand:



Australia:



Signal Word
Danger (New Zealand)
Warning (Australia)

Hazard Statements
New Zealand
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.

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

Precautionary Statements – applicable to safe handling of the product

Prevention:
P260 Do not breathe mist/vapours/spray.
P264 Wash hands and exposed skin 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 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor.

Storage:
P405 Store locked up.

Disposal
P501 Dispose of contents/container in accordance with local/regional/national regulations

Other hazards which do not result in classification:
None known.

3. Composition and Information on Ingredients

Substance/Mixture: Mixture

Ingredients	CAS Number	Concentration
Guanidine hydrochloride	50-01-1	60-90% w/v

The exact concentration is commercially confidential. The concentration range shown encompasses the actual concentration. Other ingredients are either not classified as hazardous, are present below applicable disclosure thresholds, and/or do not contribute to the classification of the mixture. The mixture classification is based on available component data, concentration limits, and GHS mixture classification rules.

4. First-aid Measures

Description of First Aid Measures:

General advice: Immediate medical attention may be required following significant exposure. Show this Safety Data Sheet to medical personnel.

After inhalation: Move person to fresh air and keep comfortable for breathing. Seek medical attention if symptoms occur.

In case of skin contact: Immediately remove contaminated clothing. Rinse affected skin immediately with plenty of water. Continue rinsing thoroughly. Seek medical attention. Wash contaminated clothing before reuse.

After eye contact: Immediately rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately obtain medical attention.

After swallowing: Rinse mouth. Do not induce vomiting. Immediately contact a POISON CENTRE or doctor.

Most important symptoms and effects, both acute and delayed

Exposure may cause skin and eye injury. Under the New Zealand classification, the product is classified as causing severe skin burns and serious eye damage and as toxic in contact with skin. Under the Australian classification, the product is classified as causing skin irritation and serious eye irritation. Harmful if swallowed. Exposure may cause pain, redness, irritation or tissue injury depending on the severity and duration of exposure.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Immediate medical attention is recommended following significant skin or eye exposure.

5. Fire-fighting Measures

Extinguishing Media

Suitable extinguishing media: Water spray, carbon dioxide (CO_2), foam, dry powder
Unsuitable extinguishing media: No information available.

Special hazards arising from the substance or mixture

Product is not classified as flammable. Heating or decomposition may produce hazardous decomposition products including nitrogen-containing compounds and hydrogen chloride.

Protective equipment and precautions for firefighters

Standard procedure for chemical fires.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Avoid contact with skin and eyes. Avoid breathing mist or spray. Ensure adequate ventilation. Wear suitable chemical-resistant gloves, protective clothing and chemical splash goggles or face protection. Keep unnecessary personnel away from the spill area.

Environmental precautions

Avoid discharge to drains or the environment where possible.

Methods and material for containment and cleaning up

Contain spill where safe to do so. Absorb with suitable inert material and transfer to an appropriate labelled container for disposal. Wash affected area thoroughly with water after removal of bulk material. Prevent unnecessary release to drains or the environment.

Reference to other sections

See section 8 for more information.

7. Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Do not breathe mist or spray. Wear suitable protective gloves, protective clothing and eye/face protection. Ensure adequate ventilation. Avoid splashing. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use good laboratory hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed and correctly labelled. Store in a cool, dry and well-ventilated place. Keep away from incompatible materials. Store in an area suitable for hazardous laboratory reagents and restrict access where required by applicable regulations.

Specific end use(s)

Apart from the uses mentioned in section 1, no other specific uses are stipulated.

8. Exposure Controls and Personal Protection

Control parameters

Ingredients with workplace control parameters

No workplace exposure standards have been identified for the mixture at the concentrations present. Handle in accordance with good laboratory hygiene and safety practice.

Engineering measures

Ensure adequate ventilation. Minimise generation of mist or aerosols. Where splashing is reasonably foreseeable, conduct handling in an area with suitable containment and access to emergency eyewash facilities.

Exposure controls

Personal Protective Equipment

Respiratory protection: Not normally required where handled as a liquid under adequate ventilation without aerosol generation. Appropriate respiratory protection should be considered where mist/aerosol generation or inadequate ventilation may occur.

Hand protection: Wear compatible chemical-resistant gloves. Select glove material and breakthrough time appropriate to the duration and conditions of use.

Eye protection: Wear chemical splash goggles. Face protection should be used where there is a foreseeable risk of splashing.

Skin and Body Protection: Wear suitable laboratory protective clothing. Additional chemical-resistant protection should be used where significant splashing is foreseeable.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

Avoid discharge to drains or the environment where possible.

9. Physical and Chemical Properties

Physical state / form	Liquid
Colour	Colourless
Odour	Odourless
Odour Threshold	No information available
pH	Approx. 7.8 at 20–25°C

Melting point / freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Flammability	Not classified as flammable; aqueous mixture
Lower and upper explosion / flammability limits	No information available
Vapour pressure	No information available
Relative vapour density	No information available
Density and/or relative density	Not determined
Water solubility	Miscible
Partition coefficient: n-octanol/water (log Kow)	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Explosive properties	Not classified as explosive
Oxidising properties	Not classified as oxidising
Particle characteristics	No information available

Other Data:
None

10. Stability and Reactivity

Reactivity	No hazardous reaction expected under recommended conditions of use.
Chemical stability	Stable under normal storage and handling conditions.
Possibility of hazardous reactions	No hazardous polymerisation expected.
Conditions to avoid	Excessive heat and conditions resulting in decomposition.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	Heating or decomposition may generate hydrogen chloride and nitrogen-containing decomposition products.

11. Toxicological Information

Information on toxicological effects

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Guanidine hydrochloride	475 mg/kg (rat)	>2000 mg/kg (rabbit	3.181 mg/L (rat, 4 h)

These results relate to the ingredient. No numerical finished-mixture toxicity data are available.

Likely routes of exposure and symptoms

Route	Potential effects
Inhalation	Mist or aerosol may irritate or damage exposed respiratory tissues. Avoid breathing mist or spray.
Skin contact	May cause skin irritation or injury. Under the NZ classification, the product is considered toxic in contact with skin and corrosive to skin.
Eye contact	May cause significant eye irritation or injury. Under the NZ classification, the product is considered to cause serious eye damage.
Ingestion	Harmful if swallowed. May cause irritation or corrosive injury to the mouth, throat and gastrointestinal tract.

Immediate, delayed and chronic effects
Exposure may cause acute skin and eye effects, the severity of which depends on the extent and duration of exposure. Under the New Zealand classification, severe skin burns and serious eye damage are recognised hazards. Under the Australian classification, skin irritation and serious eye irritation are recognised hazards. Harmful effects may occur following ingestion. The mixture has not been fully tested for delayed or chronic toxicological

effects.

Acute oral toxicity: Mixture: Classified as Acute Toxicity Category 4. Harmful if swallowed.
Acute dermal toxicity: Mixture: Classified as Acute Toxicity Category 3 (New Zealand). Toxic in contact with skin.
Acute inhalation toxicity: Mixture: The product is not classified.
Skin corrosion/irritation: Mixture: Classified as Skin Corrosion Category 1C (New Zealand). Causes severe skin burns and eye damage. Classified as Skin Irritation Category 2 (Australia). Causes skin irritation.
Serious eye damage/irritation: Mixture: Classified as Serious Eye Damage Category 1 (New Zealand). Causes serious eye damage. Classified as Eye Irritation Category 2A (Australia). Causes serious eye irritation.
Respiratory sensitisation: Mixture: The product is not classified.
Skin sensitisation: Mixture: The product is not classified.
Germ cell mutagenicity: Mixture: The product is not classified.
Carcinogenicity: Mixture: The product is not classified.
Reproductive toxicity: Mixture: The product is not classified.
Specific target organ toxicity – single exposure: Mixture: The product is not classified.
Specific target organ toxicity – repeated exposure: Mixture: The product is not classified.
Aspiration hazard: Mixture: The product is not classified.

Additional information
No other information.

12. Ecological Information

Aquatic ecotoxicity
The mixture itself has not been tested for aquatic ecotoxicity. No aquatic environmental classification has been assigned in this SDS based on the currently available mixture assessment. Ingredient-specific ecotoxicological information should be considered where relevant to waste management and environmental release.

Terrestrial ecotoxicity
No data are available on terrestrial ecotoxicity of the mixture.

Basis and limitations of the ecological assessment
The ecological properties of the complete mixture have not been experimentally determined. The assessment is based on available ingredient information and applicable GHS mixture-classification principles.

Persistence and degradability
Mixture: The product has not been tested.
Bioaccumulative potential
Mixture: The product has not been tested.
Mobility in soil
Mixture: The product has not been tested.
Results of PBT and vPvB assessment
No mixture-specific assessment has been performed.
Other adverse effects / additional ecotoxicological information
Avoid unnecessary release to the environment.

13. Disposal Considerations

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 according to the 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. Handle product residues and contaminated packaging as hazardous chemical waste where required by applicable local requirements. Avoid direct skin and eye contact during disposal activities.

Product
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14. Transport Information

NZS 5433 / ADG / IMDG / IATA
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

Hazchem code (ADG)
Not Applicable

Special precautions for user
Not Applicable

Transport in bulk according to IMO instruments
Not Applicable

15. Regulatory Information

New Zealand

This product has been assessed according to the New Zealand GHS 7-based hazardous substances classification system.

HSNO Approval: HSR002596 – Laboratory Chemicals and Reagent Kits Group Standard 2020
Tracking: Not required.
Certified Handler: Not required.
Controlled Substance License: Not required
TEL/EEL: No applicable TEL or EEL identified
ACVM Act 1997: Not applicable

Australia

This product is classified according to GHS 7 as adopted in Australia and the applicable Work Health and Safety Regulations.

Hazardous chemical classification: Acute Toxicity – Oral Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A
Dangerous goods classification: Not classified as dangerous goods for transport; see Section 14

SUSMP / Poisons Schedule: GUANIDINE — Schedule 6

Additional regulatory information: No additional information available

16. Other Information

Classification basis

The complete mixture has not been experimentally tested for all hazard endpoints. Classification is based on available guanidine hydrochloride toxicological information, concentration data and applicable GHS mixture-classification principles.

The New Zealand classification also takes into account the NZ EPA Chemical Classification and Information Database classification for guanidinium chloride at concentrations greater than 25% in a non-hazardous diluent.

The Australian classification has been assessed separately under GHS 7 using available toxicological and mixture-classification information. Consequently, the skin, eye and dermal acute-toxicity classifications differ between New Zealand and Australia.

Abbreviations and acronyms

GHS: Globally Harmonized System of Classification and Labelling of Chemicals
SDS: Safety Data Sheet
CAS: Chemical Abstracts Service
HSNO: Hazardous Substances and New Organisms Act 1996
NZ EPA: New Zealand Environmental Protection Authority
WHS: Work Health and Safety
PPE: Personal Protective Equipment
TWA: Time-weighted average
STEL: Short-term exposure limit
ATE: Acute toxicity estimate
LD50: Median lethal dose
LC50: Median lethal concentration
BCF: Bioconcentration factor
PBT: Persistent, bioaccumulative and toxic
vPvB: Very persistent and very bioaccumulative
NZS 5433: New Zealand Standard: Transport of dangerous goods on land
ADG: Australian Code for the Transport of Dangerous Goods by Road & Rail
ICAO TI: International Civil Aviation Organization Technical Instructions
IATA DGR: International Air Transport Association Dangerous Goods Regulations
IMDG: International Maritime Dangerous Goods Code
Hazchem code: Emergency action code for dangerous goods
IMO: International Maritime Organization
UN: United Nations
N.O.S: Not otherwise specified

Key references and sources of data

United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), seventh revised edition.

Safe Work Australia, *Preparation of Safety Data Sheets for Hazardous Chemicals — Code of Practice*, June 2023.

New Zealand EPA, *Hazardous Substances (Safety Data Sheets) Notice 2017*, consolidated 30 September 2022.

New Zealand Environmental Protection Authority (NZ EPA), Chemical Classification and Information Database — Guanidinium chloride and guanidinium chloride >25% in a non-hazardous diluent.

General advice

Use good laboratory hygiene and safety practices when handling this product. Use only as recommended.

Date of original preparation: February 2021
Date of last revision: October 2026
Version: 03
Revision summary: Updated NZ and Australian jurisdiction-specific product hazard assessment and SDS format.

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the manufacturer's knowledge and does not purport to be all-inclusive*. The user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. And should be taken as a safety guide for the product and its recommended uses but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact MJ Biosciences Limited.*