Safety Data Sheet: BD002

Version: 04 **Manufacturer**: Azora Biosciences **Phone:** +64 21 030 4004

1. Product and Company Information

Product Name:	BD002
Product Number / Brand:	BD002 / 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

Flammable Liquid: Category 2
Acute Toxicity – Oral: Category 4
Acute Toxicity – Dermal: Category 3
Skin Corrosion: Category 1C
Serious Eye Damage: Category 1

Australia

Flammable Liquid: Category 2
Skin Irritation: Category 2
Eye Irritation: Category 2A
Specific target organ toxicity – single exposure: Category 3

Hazard pictograms

New Zealand



Australia



Signal Word
Danger

Hazard Statements
New Zealand
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.

Australia
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary Statements – applicable to safe handling of the product

Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe vapours/mist/spray.
P264 Wash hands and exposed skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P370 + P378 In case of fire: Use alcohol-resistant foam, dry chemical powder, carbon dioxide or dry sand to extinguish.

Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:
P501 Dispose of contents/container in accordance with local, regional, national, and institutional laboratory waste requirements.

Other hazards which do not result in classification:
None known

3. Composition and Information on Ingredients

Substance/Mixture: Mixture

Ingredients	CAS Number	Concentration
2-Propanol / Isopropanol	67-63-0	60–70% v/v
Guanidine hydrochloride	50-01-1	20–30% 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: Move exposed person away from the source of exposure. Show this Safety Data Sheet to medical personnel. Notes to physician – treat symptomatically.

After inhalation: Move person to fresh air and keep comfortable for breathing. Seek medical attention if dizziness, drowsiness, respiratory irritation or other symptoms occur.

In case of skin contact: Immediately remove contaminated clothing. Rinse skin thoroughly with water. Seek medical attention following significant exposure or if symptoms develop.

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

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

Most important symptoms and effects, both acute and delayed

May cause skin and eye injury. Vapours may cause headache, dizziness or drowsiness. Harmful effects may occur following ingestion. Under the NZ classification, severe skin burns, serious eye damage and toxic effects following skin exposure are recognised hazards.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting Measures

Extinguishing Media

Suitable extinguishing media: Alcohol-resistant foam, dry chemical powder, carbon dioxide or water spray.
Unsuitable extinguishing media: Do not use a direct high-pressure water jet where this may spread burning liquid.

Special hazards arising from the substance or mixture
Highly flammable liquid and vapour. Vapours may form flammable or explosive mixtures with air. Heating or combustion may generate carbon oxides, nitrogen oxides and hydrogen chloride.

Protective equipment and precautions for firefighters
Wear appropriate protective equipment and self-contained breathing apparatus where required. Cool exposed containers with water spray.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Remove ignition sources. Ensure adequate ventilation. Avoid breathing vapours or mist and avoid skin and eye contact. Wear appropriate PPE.

Environmental precautions

Prevent unnecessary release to drains or the environment.

Methods and material for containment and cleaning up

Contain spill where safe to do so. Absorb with inert non-combustible material and place in a suitable labelled container. Use non-sparking equipment where appropriate. Dispose of waste in accordance with applicable requirements.

Reference to other sections

See section 8 for more information.

7. Handling and Storage

Precautions for safe handling

Keep away from heat, sparks, flames and other ignition sources. No smoking. Avoid breathing vapours or mist and avoid contact with skin and eyes. Use only with adequate ventilation. Take precautions against static discharge. Wear appropriate PPE.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a cool, dry, well-ventilated area away from heat and ignition sources. Keep away from incompatible materials.

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

Component	CAS No.	Exposure standard	Control parameters	Basis
2-Propanol / Isopropanol	67-63-0	TWA	400 ppm / 983 mg/m³	New Zealand Workplace Exposure Standards; Safe Work Australia Workplace Exposure Standards
		STEL	500 ppm / 1,230 mg/m³	

Engineering measures

Provide adequate ventilation. Minimise vapour and mist generation. Keep away from ignition sources.

Exposure controls

Personal Protective Equipment

Respiratory protection: Not normally required where adequate ventilation maintains exposure below applicable limits. Use suitable respiratory protection if ventilation is inadequate or significant vapour/mist exposure may occur.

Hand protection: Wear compatible chemical-resistant gloves.

Eye protection: Wear chemical splash goggles; use face protection where splashing is foreseeable.

Skin and Body Protection: Wear suitable protective clothing.

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	Alcohol-like
Odour Threshold	No information available
pH	No information available
Melting point / freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	Not determined
Flammability	Highly flammable liquid and vapour; Flammable Liquid Category 2
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	No information available
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	Vapours may form flammable mixtures with air.
Conditions to avoid	Heat, sparks, flames, static discharge and other ignition sources.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	Carbon oxides, nitrogen-containing decomposition products and hydrogen chloride may be generated on heating or combustion.

11. Toxicological Information

Information on toxicological effects

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Guanidine hydrochloride	475 mg/kg (rat)	>2,000 mg/kg (rabbit)	3.181 mg/L (rat, 4 h)

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

Likely routes of exposure and symptoms

Route	Potential effects
Inhalation	Vapours or mist may cause respiratory irritation, headache, dizziness or drowsiness.
Skin contact	May cause irritation or injury. Under the NZ classification, corrosive and acute dermal toxicity hazards apply.

Eye contact	May cause serious irritation or injury. Under the NZ classification, serious eye damage applies.
Ingestion	May cause gastrointestinal irritation or harmful systemic effects.

Immediate, delayed and chronic effects
Exposure may cause skin and eye effects and vapour exposure may result in headache, dizziness or drowsiness. Under the New Zealand classification, severe skin burns, serious eye damage and toxic effects following skin exposure are recognised hazards. Harmful effects may occur following ingestion. The complete mixture has not been fully tested for delayed or chronic toxicological effects.

Acute oral toxicity: Mixture: Classified as Acute Toxicity Category 4 (New Zealand). 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: Classified as Specific Target Organ Toxicity – Single Exposure Category 3 (Australia). May cause drowsiness or dizziness.
Specific target organ toxicity – repeated exposure: Mixture: The product is not classified.
Aspiration hazard: Mixture: The product is not classified.

Additional information
The toxicological properties of the mixture have not been fully tested. The classification is based on available component data, concentration limits, and GHS mixture classification rules. Handle in accordance with good laboratory hygiene and safety practice.

12. Ecological Information

Aquatic ecotoxicity
The mixture has not been tested. No aquatic environmental classification has been assigned based on the available mixture assessment.

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

Basis and limitations of the ecological assessment
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 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. Keep waste away from ignition sources. Dispose of product residues and contaminated packaging through an appropriate hazardous-chemical waste route in accordance with applicable local requirements.

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

Contaminated packaging
Dispose of as unused product.

14. Transport Information

	NZ land transport (NZS 5433)	Australia road/rail (ADG)	Sea transport (IMDG)	Air transport (ICAO-TI/IATA-DGR)
UN number	1219	1219	1219	1219
UN proper shipping name	ISOPROPANOL (ISOPROPYL ALCOHOL)	ISOPROPANOL (ISOPROPYL ALCOHOL)	ISOPROPANOL (ISOPROPYL ALCOHOL)	ISOPROPANOL (ISOPROPYL ALCOHOL)
Transport hazard class	3	3	3	3
Subsidiary risk(s)				
Packing group	II	II	II	II
Hazard label(s)				

Environmental hazards
Not classified as marine pollutant/environmentally hazardous for transport.

Hazchem code (ADG)
2YE

Special precautions for user
Keep away from heat, sparks, flames and ignition sources.

Transport in bulk according to IMO instruments
Not Applicable

15. Regulatory Information

New Zealand

This product is classified 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: Flammable Liquid Category 2; Skin Irritation Category 2; Eye Irritation Category 2A; Specific Target Organ Toxicity – Single Exposure Category 3.

Dangerous goods classification: UN1219 ISOPROPANOL (ISOPROPYL ALCOHOL), Class 3, Packing Group II.; 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 the known formulation, available toxicological and physical-hazard information for isopropanol and guanidine hydrochloride, ingredient concentrations and applicable GHS mixture-classification principles.

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.

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: 04
Revision summary: Updated NZ/Australian hazard classification, flammability controls, toxicological information, transport classification and Australian poisons scheduling information.

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.*