



# Material Safety Data Sheet

**Issue: 6**  
Date: 1/5/10

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## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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### PRODUCT NAME

BIOBALL

### PROPER SHIPPING NAME

BIOLOGICAL SUBSTANCE, CATEGORY B

### PRODUCT USE

Used for quantitative microbiological quality control.

### SUPPLIER

Company: BTF - a Biomerieux Company

Address:

Unit 1, 35 - 41 Waterloo Rd

North Ryde BC

NSW, 2113

AUS

Telephone: +61 2 8877 9150

Fax: +61 2 8877 9101

Email: info@btfbio.com

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## Section 2 - HAZARDS IDENTIFICATION

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### STATEMENT OF HAZARDOUS NATURE

**HAZARDOUS SUBSTANCE. DANGEROUS GOODS.** According to NOHSC Criteria, and ADG Code.

### POISONS SCHEDULE

None

### RISK

•None under normal operating conditions.

### SAFETY

#### Safety Codes

S401

#### Safety Phrases

■ To clean the floor and all objects contaminated by this material use water and detergent.

S46

■ If swallowed IMMEDIATELY contact Doctor or Poisons Information Centre (show this container or label).

S60

■ This material and its container must be disposed of as hazardous waste.

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**Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS**

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NAME	CAS RN	%
freeze dried ball containing viable bacteria consisting of up to 1.5 x 10 <sup>9</sup> cfu		

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**Section 4 - FIRST AID MEASURES**

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**SWALLOWED**

- Transport to hospital or doctor and seek immediate attention.

**EYE**

- - If material containing a biological agent comes in contact with the eyes:
  - Seek immediate medical attention
  - Removal of contact lenses should only be undertaken by skilled personnel.

**SKIN**

- - For any suspected contact with a material containing a biological agent
  - Rinse thoroughly with water and perform approved disinfection procedures
  - Seek medical attention.

**INHALED**

- - If fumes or combustion products are inhaled remove from contaminated area.
  - Lay patient down. Keep warm and rested.
  - Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
  - Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
  - Transport to hospital, or doctor.

**NOTES TO PHYSICIAN**

- Treat symptomatically.  
Protective vaccination/immunisation should be provided to workers depending on the organism being worked with.  
for infectious organisms:  
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**BASIC TREATMENT**  
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- Establish a patent airway with suction where necessary.
  - Watch for signs of respiratory insufficiency and assist ventilation as necessary.
  - Administer oxygen by non-rebreather mask at 10 to 15 l/min.
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**ADVANCED TREATMENT**  
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- Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
  - Monitor and treat, where necessary, for arrhythmias.
  - Start an IV D5W TKO.
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## SPECIAL CONSIDERATIONS

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- Symptomatic and supportive care should not be delayed.

BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994.

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## Section 5 - FIRE FIGHTING MEASURES

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### EXTINGUISHING MEDIA

- - Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

### FIRE FIGHTING

- - Use water delivered as a fine spray to control fire and cool adjacent area.
- Do not approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

### FIRE/EXPLOSION HAZARD

- Combustible.

Decomposes on heating and produces toxic fumes of: carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>).

Avoid creating dust - may present dust explosion hazard. Dry dust can be electrostatically charged by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport. Build-up of electrostatic charge may be prevented by grounding.

### FIRE INCOMPATIBILITY

- Avoid contamination with strong oxidising agents as ignition may result.

### HAZCHEM

2X

### Personal Protective Equipment

Gas tight chemical resistant suit.

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### MINOR SPILLS

- Action to be taken in the event of damage or leakage:
  - If any person responsible for the carriage or opening of packages containing infectious substances (Class 6.2) becomes aware of damage to or leakage from such packages he/she should:
    - Avoid handling the package or keep handling to a minimum
    - Inspect adjacent packages for contamination and put aside any that may have been contaminated.

- Inform the appropriate Health or Veterinary Authority, and provide information on any other countries of transit where persons may have been exposed to danger; and
- Notify the consignor and/or consignee.
- A Public Health or Veterinary Authority to which actual or suspected leakage from or damage to an infectious substance package is reported, should notify the authorities of any countries in which the package may have been handled including countries in transit. [IMDG Code p. 6309].
- Allow aerosols to settle.
- Cover spill with paper towel.
- Apply a 1% sodium hypochlorite solution.
- Start application from the perimeter of the spill and work towards the centre.
- Allow sufficient contact time (30 minutes) before beginning clean-up.

## **MAJOR SPILLS**

- Not applicable.

**Personal Protective Equipment advice is contained in Section 8 of the MSDS.**

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## **Section 7 - HANDLING AND STORAGE**

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### **PROCEDURE FOR HANDLING**

- Laboratories and areas where active biological agents are handled must be restricted to authorised persons trained to perform specific tasks. Clothing restrictions must be enforced in these areas and the mandatory equipment worn. Laboratory Containment or Physical Containment Level 2 (PC 2) must be used for work with biological agents in Hazard or Risk Group 2.
- Laboratory personnel must receive suitable and sufficient information, instruction and training in working safely with agents in Group 2.
- A high standard of supervision of the work should be maintained. Access to the laboratory is to be restricted to authorised persons.
- There must be specified disinfection procedures.
- Mechanically ventilated laboratories must be maintained at negative air pressure while work is in progress.
- Benches or other working surfaces must be impervious to water, easy to clean and resistant to acids, alkalis, solvents and disinfectants.
- Safe storage must be provided for biological agents.
- Procedures that give rise to infectious aerosols must be conducted in a microbiological safety cabinet, isolator, glove box or otherwise suitably contained.
- Access to an incinerator shall be provided for the disposal of infected animal carcasses.
- There should be adequate space (24m<sup>3</sup>) in a laboratory for each worker.
- Eating, chewing, drinking, smoking, taking medication, storing food and applying cosmetics in the laboratory should be forbidden.
- Bench surfaces should be regularly decontaminated according to the pattern of the work.
- Hands should be decontaminated immediately when contamination is suspected, after handling infective materials and before leaving the laboratory.
- When gloves are worn, these should be washed or preferably changed before handling items likely to be touched by others not wearing gloves, (eg phones, paperwork). Computer keyboards and, where practicable, equipment controls should be protected by a removable flexible cover that can be disinfected.
- A means for the safe collection, storage and disposal of contaminated waste shall be provided.
- Materials for autoclaving should be transported to the autoclave in robust containers without spillage.

- Contaminated waste should be suitably labelled before removal for incineration. - Used laboratory glassware and other materials awaiting sterilisation before recycling should be stored in a safe manner. Pipettes, if placed in disinfectant, should be totally immersed.
- All accidents and incidents should be immediately reported to and recorded by the person responsible for the work or other delegated person.

#### **SUITABLE CONTAINER**

- Receptacles with their closures or fittings shall be as approved by the competent authority of the country of origin.
- Vial.

#### **STORAGE INCOMPATIBILITY**

- Presence of heat source and direct sunlight (ultra-violet radiation).

#### **STORAGE REQUIREMENTS**

- Refrigerated storage normally required.

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### **Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

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#### **EXPOSURE CONTROLS**

##### **MATERIAL DATA**

BIOBALL:  
None assigned.

##### **PERSONAL PROTECTION**

###### **EYE**

- - Safety glasses with side shields.

###### **HANDS/FEET**

- Wear general protective gloves, eg. light weight rubber gloves.  
No special equipment required due to the physical form of the product.
- Wear chemical protective gloves, eg. PVC.
- Wear safety footwear or safety gumboots, eg. Rubber.

###### **OTHER**

- - Laboratory coats or gowns should be side or back fastening and should be worn when in and removed when leaving the area.
- Separate storage, set apart from personal clothing, should be available in the laboratory suite.
- A wash basin should be located near the laboratory exit with taps that can be operated without being touched by hand.

###### **ENGINEERING CONTROLS**

- Access to the area is to be restricted to authorised persons. A specific disinfection procedure must be established and applied.  
If the area (laboratory, store, animal room) is mechanically ventilated it must be maintained at an air pressure negative to atmosphere whilst work is in progress.

If traffic in and out of Containment Level 2-4 rooms interferes with ventilation airflow patterns and, if the laboratory is ventilated specifically to contain airborne pathogens in the event of accident, then engineering controls and working arrangements must be devised to counter the risk of airborne transmission to other areas.

When undertaking procedures that are likely to give rise to infectious aerosols, a Class 1 microbiological Safety Cabinet conforming to BS5726 or with an equivalent, verified protection factor should be used. Cabinets should exhaust to outside air. Double HEPAR filtering is not necessary biological agents requiring Containment Level 2.

#### FUMIGATION:

Microbiological safety cabinets must always be fumigated if a large spill of infectious material occurs within them, before filters are changed or any maintenance work is carried out which involves access to the interior of the cabinet (air duct maintenance for example).

- Fumigation should be conducted with the night door securely sealed and the non-return valve left closed.
- Passive migration of the fumigant through the filter is allowable. Alternately the valve may be left open and the fan may be run for 10 to 15 seconds thus ensuring penetration of filter medium. The valve should then be closed and the fan switched off allowing the remainder of the fumigant to disperse within the cabinet. After at least six hours the fumigant should be exhausted to atmosphere by switching on the fan and allowing room air to enter through, for example, the night door bung-hole.
- Ensure that no personnel remain in the vicinity of the exhaust outlet and that exhaust air does not enter windows or ventilation air intakes.
- Discarded filter units should be bagged and autoclaved prior to disposal.
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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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### APPEARANCE

Freeze dried, odourless white ball approximately 3mm in diameter; soluble in water.

### PHYSICAL PROPERTIES

Mixes with water.

Infectious.

State	Manufactured	Molecular Weight	Not Applicable
Melting Range (°C)	Not Available	Viscosity	Not Applicable
Boiling Range (°C)	Not Applicable	Solubility in water (g/L)	Miscible
Flash Point (°C)	Not Applicable	pH (1% solution)	Not Available
Decomposition Temp (°C)	Not Available	pH (as supplied)	Not Applicable
Autoignition Temp (°C)	Not Applicable	Vapour Pressure (kPa)	Not Applicable
Upper Explosive Limit (%)	Not Applicable	Specific Gravity (water=1)	Not Applicable
Lower Explosive Limit (%)	Not Available	Relative Vapour Density (air=1)	Not Applicable
Volatile Component (%vol)	Not Applicable	Evaporation Rate	Not Applicable

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## **Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION**

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### **CONDITIONS CONTRIBUTING TO INSTABILITY**

For incompatible materials - refer to Section 7 - Handling and Storage.

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## **Section 11 - TOXICOLOGICAL INFORMATION**

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### **POTENTIAL HEALTH EFFECTS**

#### **ACUTE HEALTH EFFECTS**

##### **SWALLOWED**

■ Accidental ingestion of the material may be damaging to the health of the individual.

Potentially infectious.

##### **EYE**

■ Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

Potentially infectious.

##### **SKIN**

■ The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models).

Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Potentially infectious.

##### **INHALED**

Inhalation of infectious aerosols may result in a variety of infections depending on the organism involved. The incubation period for infection is variable ranging from a few days to a few weeks.

Potentially infectious.

#### **CHRONIC HEALTH EFFECTS**

■ Principal routes of exposure are by skin contact, accidental injection (needle stick), ingestion and/or inhalation of aerosols. Symptoms and longer term effects are related to the pathology of the infection.

#### **TOXICITY AND IRRITATION**

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

Not available.

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## Section 12 - ECOLOGICAL INFORMATION

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Refer to data for ingredients, which follows:

BIOBALL:

- DO NOT discharge into sewer or waterways.

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## Section 13 - DISPOSAL CONSIDERATIONS

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- - There should be a means for the safe collection, storage and disposal of contaminated waste.
    - An autoclave for sterilisation of waste materials should be readily accessible, preferably in the same laboratory or building.
    - There should be access to an incinerator for disposal of any infected animal carcasses or combustible waste.
    - All infected waste arising from work in laboratories should be made safe to handle, ideally by autoclaving before disposal by incineration.
    - If it is not reasonably practicable to autoclave wastes, it should be disposed of by incineration. It is essential that the waste is secured in strong, leak-proof containers and transported direct to the incinerator.
  - Infected materials should be placed in yellow waste sacks and suitably labelled (with permanent marker or tie-on label) showing the source of the material.
  - Sacks should be no more than three quarters full and should be closed with purpose-made plastic ties or closures or, in the case of light-gauge sacks, may be tied off at the neck. Heat-sealers, purpose-made for clinical waste may also be used.
  - Sacks should then be stored and transported in a robust secondary container which is leak-proof and which may be readily decontaminated.
  - - After sealing, the container should be externally decontaminated and labelled before removal to the incinerator.
  - It is advisable to use only containers of the type which conform with drop-tests and leak-tests defined, for example, by the United Nations.
- Viable organisms are inactivated by heat and irradiation.  
Viable organisms are susceptible to many common disinfectants: 1% sodium hypochlorite, phenolics and 2% glutaraldehyde.  
The susceptibility of BioBall containing fungus to 70% ethanol is questionable.

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## Section 14 - TRANSPORTATION INFORMATION

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Labels Required (IATA): UN3373

**HAZCHEM:**

2X (ADG7)

**ADG7:**

<b>Class or division:</b>	<b>6.2</b>	<b>Subsidiary risk:</b>	<b>None</b>
UN No.:	3373	UN packing group:	None
Special provisions:	319, 341	Packing Instructions:	None
Notes:	None	Limited quantities:	0
Portable tanks and bulk containers - Instructions:	T1, BK1, BK2	Portable tanks and bulk containers - Special provisions:	TP1
Packagings and IBCs - Packing instruction:	P650	Packagings and IBCs - Special packing provisions:	None

Shipping Name: BIOLOGICAL SUBSTANCE, CATEGORY B

**Land Transport UNDG:**

Class or division:	6.2	Subsidiary risk:	None
UN No.:	3373	UN packing group:	None

Shipping Name: BIOLOGICAL SUBSTANCE, CATEGORY B

**Air Transport IATA:**

ICAO/IATA Class:	6.2	ICAO/IATA Subrisk:	None
UN/ID Number:	3373	Packing Group:	-
Special provisions:	None		

Shipping Name: BIOLOGICAL SUBSTANCE, CATEGORY B

**Maritime Transport IMDG:**

IMDG Class:	6.2	IMDG Subrisk:	None
UN Number:	3373	Packing Group:	None
EMS Number:	F-A,S-T	Special provisions:	319
Limited Quantities:	None		

Shipping Name: BIOLOGICAL SUBSTANCE, CATEGORY B

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**Section 15 - REGULATORY INFORMATION**

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**POISONS SCHEDULE**

None

**REGULATIONS**

**No data for BioBall**

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**Section 16 - OTHER INFORMATION**

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■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review using available literature references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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