



A Meridian Life Science® Company

MATERIAL SAFETY DATA SHEET

According to EC Directive 91/155 EC

Date: 23/06/11

1. Identification of the substance/preparation and of the company/undertaking

1.1 Product Details:

Trade Name: **BL21 (DE3) Competent Cells**

Catalogue Number: BIO-85032 1ml (10 x 100µl)

Components: BL21 (DE3) competent cells
pUC19 Control DNA

1.2 Company Details:

Manufacturer/ Supplier:

Bioline
16 The Edge Business Centre
Humber Rd.
London
NW2 6EW
Tel: +44 20 8830 5300
Fax: +44 20 8452 2822

Bioline (Aust) Pty Ltd
Suite 212a,
National Innovation Centre,
Australian Technology Park
EVELEIGH NSW 2015
Tel: +61 2 92094180
Fax: +61 2 92094763

Further Information Obtainable from:

Technical Services
Details as above

1.3 Emergency Details:

24-Hour Contact in case of emergency:

Vergiftungs-Informationen-Zentrale
Mathilden Strasse 1
79106 Freiburg
GERMANY
Tel: +49 (0) 761 19240.

2. Composition/ Information on Ingredients

Substance Name: The hazards identified with this product are those associated with the following component (s):

Ingredient Name:	CAS No.	EU Symbol	R-phrase	Labels
Calcium Chloride	10035-04-8	Xi	R36	Xi ; R:36, S:(2)- 22 – 24
Glycerol	56-81-5			S25, S36

For additional information on toxicity, please refer to Sec. 11.

3. Hazards Identification

NFPA Rating/HMIS Rating

Health: 1

Flammability: 0

Reactivity: 0

3.1 Emergency Overview:

Critical hazards: Be harmful if swallowed
May cause eye irritation

Environment hazards: Not applicable

For additional information on toxicity, please refer to Sec. 11.

4. First Aid Measures

4.1 Oral Exposure:

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately if swallowed in large quantity of this material.

4.2 Inhalation Exposure:

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

4.3 Dermal Exposure:

In case of contact, immediately wash skin with soap and copious amounts of water.

4.4 Eye Exposure:

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

5. Fire Fighting Measures

5.1 Extinguishing Media:

Suitable: Water spray. Carbon Dioxide, dry chemical powder or appropriate foam.

5.2 Special Fire fighting Procedures:

Wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

5.3 Specific Hazard(s):

N/A

5.4 Flash point:

N/A

5.5 Flammability:

N/A

5.6 Auto-ignition Temp:

N/A

5.7 Explosion Limits:

N/A

6. Accidental Release Measures

6.1 Procedure(s) Of Personal Precaution(s):

Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves and Chemical safety goggles.

6.2 Methods For Cleaning Up:

Cover with dry lime, sand, or soda ash. Place in covered containers using nonsparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

6.3 Environmental Precaution(s):

Avoid contaminating water supply. Avoid contaminating sewers and waterways with this material.

6.4 Procedure To Be Followed in Case Of Leak or Spill:

Evacuate area.

7. Handling and Storage

7.1 Handling:

Irritating material, avoid contacting and avoid breathing the material.

7.2 User Exposure:

Avoid contacting with eyes. Do not ingest. Wash thoroughly after handling.

7.3 Storage:

Store in -80°C freezer

8. Exposure Controls/ Personal Protection

8.1 Engineering Controls:

Safety shower and eye bath. Mechanical exhaust required.

8.2 Personal Protective Equipment:

Government approved respirator.

8.3 Hand:

Compatible chemical-resistant gloves.

8.4 Eye:

Chemical safety goggles.

8.5 Skin Specific:

Chemical resistant

8.6 General Hygiene Measures:

Wash hands thoroughly after handling. Wash contaminated clothing before use.

9. Physical and Chemical Properties

9.1 Appearance: Physical State:

Appearance: Translucent liquid solution

Odour: No odour

9.2 Property Value At temperature or Pressure

BP/BP Range: N/A

MP/MP Range: N/A

Freezing Point: N/A

pH: N/A

Vapor Pressure: N/A

Vapor Density: N/A

Saturated Vapor: N/A

SG/Density: N/A

Volatile %: N/A

Evaporation Rate: N/A

Viscosity: N/A

Partition Coefficient: N/A

Flash Point: N/A

Flammability: N/A

Solubility in Water: N/A

N/A = not available

10. Stability and Reactivity

10.1 Stability:

Stable under normal condition

10.2 Conditions to Avoid:

Moisture.

Excessive heat

10.3 Materials to Avoid:

Acid chlorides, Phosphorus halides, strong oxidizing agents, strong acids, strong reducing agents..

10.4 Hazardous Decomposition Products:

Hydrogen Chloride. Chlorine containing gases. Carbon monoxide. Carbon dioxide. Sulfur dioxides.

10.5 Hazardous Polymerization:

Will not occur.

11. Toxicological Information

11.1 Acute Toxicity

Dermal/Skin

Calcium Chloride: 5mg/m³

Glycerol: 18700mg/kg

11.2 Inhalation/Respiratory:

Not determined

11.3 Oral/Ingestion:

Calcium Chloride: 1000mg/kg
Glycerol: 950mg/kg

11.4 Target organs:

Eyes, Heart, Kidney

11.5 Carcinogenicity:

NTP: Not tested

IARC: Not listed

OSHA: Not regulated

12. Ecological Information

12.1 Acute Ecotoxicity Tests

Test Type: LC₅₀ Fish

Species : *Onchorhynchus mykiss* (Rainbow trout)

Time: 96h

Value: 51000~57000 mg/l

Test Type: EC₅₀ Daphnia

Species : *Daphnia*

Value: 153000 mg/l

Test Type: EC₅₀ algae

Species: *Microcystis aeruginosa* (Blue algae)

Time: 8 days

Value: > 2900 mg/l

Test Type: LC₅₀ Fish

Species: *Carassius auratus* (Goldfish)

Time: 24 h

Value: 5000 mg/l

13. Disposal Considerations

13.1 Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material.

Observe all federal, state and local environmental regulations.

14. Transport Information

14.1 DOT

Proper Shipping Name: Not determined

Class:

Packing Group:

Hazard Label: None

PIH: Not PIH

14.2 IATA

Non-Hazardous for Air Transport: non-hazardous for air transport.

15. Regulatory Information

15.1 US Classification and Label Text

US Statements: Combustible. Readily absorbed through skin. Target Organ (s):
Eyes, Skin.

15.2 United States Regulatory Information:

Sara Listed: No

TSCA Inventory Item: Yes

15.3 Canada Regulatory Information WHMIS Classification:

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

16. Other Information

The information provided in this Material Safety Data Sheet (MSDS) is accurate to the best of our present knowledge. However, this shall not constitute a guarantee for any specific product features. All substances and preparations may present unknown hazards and should be used with caution. Bioline shall not be held liable for any damage resulting from the handling of or from contact with the above product. The information supplied in this MSDS shall not establish a legally valid contractual relationship.