

# Material Safety Data Sheet

**Product name:** Fluo-DNA Loading Buffer

**Product code:** LB-001B

**Supplier:** ZmTech Scientific (scientifique)  
5020 Fairway street, Suit 224, Montreal, QC, Canada H8T 1B8  
Tel: 514-702 7702; Fax: 514-254 5356  
Emergency Tel: 1-800-424-9300 (Transportation Spill Response 24 hours)  
1-613-996-6666 (National Response in Canada)

**Revision date:** 12/20/2010

## 1. Hazards identification

**Physical state:** Liquid.

**Active ingredients and hazardous components:**

CAS-No.	Einecs-No.	Name	Contents	Danger	Risks
67-68-5	2006643	Dimethyl sulfoxide	0.10%	---	---
115-39-9	2040862	Bromophenol blue	0.075%	---	---
56-81-5	2002895	Glycerol	30.00 %	---	---
7732-18-5	---	Water	>55 %	---	---

**Other components not listed here are not hazardous or their concentrations do not exceed the limits specified in the OSHA Hazard Communication Standard 29 CFR 1910.1200**

**Potential acute health effects:**

Slightly hazardous in case of inhalation (lung irritant). Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion,

**Potential Chronic Health Effects:**

Slightly hazardous in case of skin contact (irritant, sensitizer, permeator), of ingestion.

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

## 2. First aid measures

**Eye Contact:** Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention if irritation occurs.

**Skin Contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

**Serious Skin Contact:** Not available.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation:** Not available.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Serious Ingestion:** Not available.

**Protection of first-aiders:** No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

## 3. Fire-fighting measures

**Flammability of the Product:** Combustible.

**Auto-Ignition Temperature:** 215°C (419°F)

**Flash Points:** 94 °C (201 °F) - closed cup

**Flammable Limits:** LOWER: 2.6% UPPER: 28.5% (Lewis), 42% (NFPA)

**Products of Combustion:** These products are carbon oxides (CO, CO<sub>2</sub>), sulfur oxides (SO<sub>2</sub>, SO<sub>3</sub>...).

**Fire Fighting Media and Instructions:**

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

**Special Remarks on Explosion Hazards:** Not available.

#### 4. Accidental release measures

**Small Spill:**

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and p. 2 regional authority requirements.

**Large Spill:**

Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. If the product is in its solid form: Use a shovel to put the material into a convenient waste disposal container. If the product is in its liquid form: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

#### 5. Handling and storage

**Precautions:**

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

**Storage:**

Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Hygroscopic. Sensitive to light. Store in light-resistant containers.

#### 6. Exposure controls/personal protection

**Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection:**

Safety glasses. Synthetic apron. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves (impervious).

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

#### 7. Physical and chemical properties

**Physical state and appearance:** Liquid

**Odor:** Sulfurous. (Slight.)

**Color:** Blue

**pH (1% soln/water):** Not available.

**Flash point:** 94 °C (201 °F) - closed cup

**Water/Oil Dist. Coeff.:** The product is more soluble in water; log(oil/water) = -2

**Ionicity (in Water):** Not available.

#### 8. Stability and reactivity

**Stability:** Stable under normal conditions.

**Materials to avoid:** No information available

**Hazardous decomposition products:** No information available

**Polymerization:** Hazardous polymerization does not occur.

#### 9. Toxicological information

**Routes of Entry:** Absorbed through skin. Eye contact. Inhalation.

**Acute toxicity:** Slightly hazardous in case of inhalation (lung irritant). Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion,

**Toxicity data:** IPR-RAT LD50 8700 mg kg<sup>-1</sup>  
ORL-RAT LD50 14500 mg kg<sup>-1</sup>  
SCU-RAT LD50 100 mg kg<sup>-1</sup>  
ORL-MUS LD50 8700 mg kg<sup>-1</sup>

## 10. Ecological information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:** Inherently biodegradable

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation:** Not available.

## 11. Disposal considerations

Dispose of in accordance with local regulations

## 12. Transport information

### IATA

**Proper shipping name:** Not classified as dangerous in the meaning of transport regulations

**Hazard Class:** No information available

**Subsidiary Class:** No information available

**Packing group:** No information available

**UN-No:** No information available

## 13. Regulatory information

### **WHMIS (Canada):**

CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).

### **DSCL (EEC):**

R36/37/38- Irritating to eyes, respiratory system and skin.

S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.

### **HMIS (U.S.A.):**

**Health Hazard:** 1

**Fire Hazard:** 2

**Reactivity:** 0

**Personal Protection:** F

### **National Fire Protection Association (U.S.A.):**

**Health:** 1

**Flammability:** 2

**Reactivity:** 0

### **Protective Equipment:**

Gloves (impervious). Synthetic apron. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

### **Notice to reader**

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