

## PRODUCT AND COMPANY INFORMATION

- ◆ **Product name:** ONPG  $\beta$ -Galactosidase Assay Kit
- ◆ **Catalog number:** GO-10001
- ◆ **Chemical name or synonyms:** none
- ◆ **Formula:**
  - **5X Lysis Buffer** – 1.25M Tris Buffer containing Triton x-100
  - **Standard Dilution Buffer** – PBS buffer containing Bovine Serum Albumin
  - **ONPG Substrate Solution** – *o*-nitrophenyl- $\beta$ -D-galactopyranoside in substrate buffer (1mM Magnesium Chloride, 10mM KCL, 50mM  $\beta$ -Mercaptoethanol, 60mM Sodium Phosphate dibasic, pH 8.0)
  - **Stop buffer** – 1M Sodium carbonate
  - **Enzyme standard,  $\beta$ -Galactosidase**, 400 units/ml in 50% glycerol buffer
- ◆ **Contact:**

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## HAZARDOUS INGREDIENTS

This product contains hazardous ingredients (yes; no; n/a; n/i): yes  
This product contains hazardous carcinogens (y; n; n/a; n/i): no

## HEALTH HAZARD DATA

- ◆ **Health Effects (acute and chronic):**  
Associated with  $\beta$ -mercaptoethanol  
Toxic if swallow or inhale. Risk of damage to eyes. Fumes may cause eyes irritation. May cause severe skin and respiratory tract irritation. The symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. **EXERCISE CAUTION AT ALL TIMES.**
- ◆ **Primary Routes of Entry:**  
Inhalation and ingestion  
Eye contact from splashes possible  
Readily absorbed through the skin.
- ◆ **Medical Conditions Aggravated by Exposure:**  
Not known
- ◆ **Emergency First Aid Procedures:**
  - **Eye contact** – Flush contaminated eye(s) with large volumes of water for at least 15 minutes. Get medical attention if eye(s) remain irritated.
  - **Skin contact** – Flush contaminated areas with large volumes of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if skin remains irritated.
  - **Ingestion** – Keep victim warm and calm. Get immediate medical attention.
  - **Inhalation** – Move victim to fresh air. Give oxygen if breathing becomes difficult. Should breathing stop, give artificial respiration.
  - Wash contaminated clothing before reuse.

## CHEMICAL DATA

- ◆ **Boiling Point:** ~99.99°C
- ◆ **Vapor Pressure:** ND
- ◆ **Vapor density:** ND
- ◆ **Solubility in Water:** product should be soluble in water
- ◆ **Appearance and odor information:** odorless except ONPG substrate solution (sulfur dioxide fume from  $\beta$ -mercaptoethanol)
- ◆ **Specific Gravity (water = 1):** ~1 (dissolved)
- ◆ **Percent volatile by volume (%):** N/A
- ◆ **Evaporation Rate (N/I=1) :** ~1 (dissolved)

## PHYSICAL HAZARD DATA

- ◆ **Flash Point:** N/A
- ◆ **UEL:** N/A
- ◆ **Extinguishing Media:** No specific information is known of the flash points or explosion limits. Use media specific for site conditions.
- ◆ **Special Fire Fighting Procedures:**  
Wear self-contaminated breathing apparatus and protective garments. If possible have this product removed from fire scene. Combustible liquid.
- ◆ **Unusual Fire and Explosion Hazards:**  
N/A

## REACTIVITY DATA

- ◆ **Incompatibility (material to avoid):**  
No known specific chemical incompatibilities
- ◆ **Hazardous Decomposition Products:**  
Acidic gases
- ◆ **Will Hazardous Polymerization Occur:**  
No
- ◆ **Is the product stable:**  
Yes, under normal handling and storage conditions.
- ◆ **Condition to avoid/stability:**  
Excess heat, flame or pressure.

## SPILL AND LEAK PROCEDURES

- ◆ **Steps to be taken in Case Material is Released or Spilled:**  
Ventilate the area. Initiate cleaning up immediately. If the product is dry, mop up. If the product is a solution, use an absorbent material to contain/pick up the spilled solution. Once spent, place all the contaminated disposables into a suitable container, seal, label and dispose.
- ◆ **Waste Disposal Method:**  
Dispose in accordance with governmental environmental regulations.

## EXPOSURE CONTROL INFORMATION

- ◆ **Ventilation Data:**  
Provide adequate general exhaust ventilation.
- ◆ **Respiratory Protection:**  
None required if ventilation is adequate.
- ◆ **Protective Gloves:**  
Rubber or chemical resistant gloves should be worn.
- ◆ **Other Protective Equipment:**  
Safety glasses with side shields are advised. Eye wash stations and deluge showers should also be available. Finally, a lab coat should be worn.
- ◆ **Other Engineering Controls:**  
None
- ◆ **Work Practices:**  
Good laboratory technique should be used when handling this product. Do not mouth pipette. Observe appropriate chemical hygiene. Avoid contact with skin or eyes.
- ◆ **Hygienic Practices:**  
Do not eat, drink, or smoke while working with reagents. Upon completion of work activities involving this product, wash any exposed body areas thoroughly with soap and water.

## SPECIAL PRECAUTIONS

- ◆ **Precaution to be taken in Handling and Storage:**  
See package insert for storage information.
- ◆ **Maintenance Precautions:**  
N/A
- ◆ **Other Precautions:**  
N/A
- ◆ **Other Comments:**  
N-No, Y-Yes, N/A-Not Applicable, N/I-No Information.  
The information provided is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. OZ Biosciences shall not be held liable for any damage resulting from handling or from contact with the product.