

**Material Safety Data Sheet**  
**Version No.: 1.0(Rev.date 2012-09-10)**
**X-gal**


---

**1. Product and Company Information**


---

Product Name : X-Gal

Recommended Use : For Research Use Only

Supply Information

Company : Bioneer

Address : 8-11 Munpyeongseo-ro, Daedeok-gu, Daejeon 34302, Republic of Korea

Emergency telephone number : 82-42-930-8777

---

**2. Hazards Identification**


---

GHS-Classification

Classification of the hazardous chemical

Not Hazardous substance.

Label elements, including precautionary statements

Pictogram

Not information available.

Hazard statements

Not information available.

Precautionary statements

Not information available.

---

**3. Composition/Information on ingredients**


---

Chemical name	Synonyms	CAS No.	Weight(%)
5-Bromo-4-chloroindol-3-yl $\beta$ -D-galactopyranoside	X-gal	7240-90-6	90~100%

---

**4. Composition/Information on ingredients**


---

- . Eye contact : Rinse thoroughly with plenty of water for at least 15 minutes.
  - . Skin Contact : Rinse thoroughly with plenty of water for at least 15 minutes.
  - . Inhalation : Move to fresh air. If breathing is difficult, give oxygen
  - . Ingestion : Do not feed anything by mouth to an unconscious person.
  - . The most important acute and delayed symptoms/effects : Not information available
  - . Notes to Physician : Not information available.
- 

## 5. Fire-fighting measures

---

- . Suitable Extinguishing Media : Water-spray, Dry chemical, CO2
  - . Flammable Properties : No information available
  - . Protective Equipment and Precautions for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.
- 

## 6. Accidental release measures

---

- . Personal Precautions : Remove all sources of ignition. Stop the leakage if not dangerous.
  - . Environmental precautions : Absorb the sand or vermiculite. Prevent entering from waterway, drain, basement, close space.
  - . Methods for cleaning up : Wash contaminated area with plenty of water if small spillage. Absorb with sand, non-combustible material and Put in a container.
- 

## 7. Handling and Storage

---

- . Handling : Do not breathe vapours. Wash thoroughly after handling.
  - . Storage : Store in tightly closed. Store at refrigerate. Store in a dry, well-ventilated area.
- 

## 8. Exposure control/personal protection

---

- . Chemical exposure limits, biological exposure limits etc. : No information available.
  - . Engineering Measures : No information available.
  - . Personal Protective Equipment
    - Respiratory Protection : Wear respiratory mask approved by KOSHA(Korea Occupation Safety Health Agency).
    - Eye/Face Protection : Wear Chemical Safety protective goggle or glasses approved by KOSHA(Korea Occupation Safety Health Agency).
    - Skin Protection : Wear Chemical Safety gloves approved by KOSHA(Korea Occupation Safety Health Agency).
    - Body Protection : Wear protective clothes approved by KOSHA(Korea Occupation Safety Health Agency).
-

---

## 9. Physical and chemical properties

---

- . Appearance : Solid, powder
  - . Odor : No data available
  - . Odor threshold : No information available
  - . pH : No information available
  - . Melting point/Freezing point : No information available
  - . Initial boiling point/range : No information available
  - . Flash point : No information available
  - . Evaporation rate : No information available
  - . Flammability (Solid,Liquid) : No information available
  - . Flammability Limits upper/lower : No information available
  - . Vapor pressure : No information available
  - . Solubility : No information available
  - . Vapor density : No information available
  - . Viscosity : No information available
  - . n octanol/water : No information available
  - . Autoignition temperature : No information available
  - . Decomposition temperature : No information available
  - . Specific gravity : No information available
  - . Molecular weight : No information available
- 

## 10. Stability and Reactivity

---

- . Stability : Stable under recommended storage conditions.
  - . Possibility of harmful response : No information available
  - . Conditions to avoid (electric discharge, impact, vibration etc) : Heat,spark,flame
  - . Material to avoid : Combustible materials
  - . Hazardous Decomposition Products : No information available
- 

## 11. Toxicological information

---

- . Principle routes of exposure
    - Respiratory: It can irritate respiratory system but is low risk.
    - Dermal : No information available.
    - Eye/Skin : No information available.
  - . Acute toxicity
    - Respiratory irritability : No data available
-

Skin irritability : Can be caused by skin irritation

Serious eye damage/eye irritation : Can be caused by eye irritation

Respiratory irritability : No data available

Skin irritability : No data available

Carcinogenicity : No data available

Germ cell mutagenicity : in vivo mouse erythrocyte micronucleus test – negative

Reproductive toxicity : No data available

Specific target organ toxicity (single exposure) : No data available

Specific target organ toxicity (repeated exposure) : No data available.

Aspiration Hazard : No data available

. Numerical measures of toxicity(Acute toxicity estimates etc) : No data available

---

## 12. Ecological Information

---

. Ecotoxicity effects: No data available

. Residual and degradability : No data available

. Bioaccumulation : No data available

. Mobility : No data available

. Other harmful effects : No data available

---

## 13. Disposable considerations

---

. Waste disposal method : Dispose of material in accordance with formally disposal company.

. Contaminated packaging : Dispose contents and vessel in accordance with regulation by the waste disposal law.

---

## 14. Transport Information

---

. UN Number : Not applicable.

. UN Proper Shipping Name : Not applicable.

. Transport hazard class : Not applicable.

. Packing group : Not applicable.

. Marine pollutant : Not applicable.

. The special vehicle Safety measures : Not applicable.

---

## 15. Regulatory information

---

- . Regulation by Industrial safety and health act : Not applicable.
  - . Regulation by toxic chemicals control act : Not applicable.
  - . Regulation by Safety control of dangerous substance act : Not applicable.
  - . Regulation by the waste control act : Not applicable.
  - . Regulation by other domestic and foreign regulatory : Not applicable.
- 

#### 16. Other information

---

Bioneer Corporation makes no warranty or representation to its completeness, accuracy or currency. This material is intended for use by persons with pertinent technical skills and at their discretion and risk. It is the responsibility of the user to determine the product's suitability for its intended use, the product's safe use, and the product's proper disposal. Disposal of hazardous material may be subject to federal, state or local laws or regulations.

---