



# Cell Signaling

TECHNOLOGY®

**SAFETY DATA SHEET (SDS):** According to the OSHA Hazard Communication Standard 29 CFR 1910.1200

**Issuing Date:** 2014-09-03

**Revision Date:** 2014-09-04

**Version:** 1

## SECTION 1. Identification

### Product identifier

**Product number** 11678  
**Product name** X-Gal

### Recommended use of the chemical and restrictions on use

**Identified uses** This product is intended for research purposes only.  
**Uses advised against** This product is not intended for use in diagnostic procedures or therapeutics.  
This product is not intended for use in humans or animals.

### Manufacturer, importer, supplier

**Manufacturer address** Cell Signaling Technology, Inc.  
3 Trask Lane  
Danvers, MA 01923  
United States  
TEL: +1 978 867 2300  
FAX: +1 978 867 2400

**Website** www.cellsignal.com  
**Email address** support@cellsignal.com  
**Company phone number** 978-867-2300  
**Emergency telephone number** In case of emergency call CHEMTREC 1-800-424-9300

## SECTION 2. Hazard(s) identification

### Classification

This substance/mixture is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

### GHS Label elements, including precautionary statements

**Signal Word**  
None

**Hazard statement(s)**  
None

**Precautionary Statement(s)**  
None

### Supplementary Hazard Information

**Hazards not otherwise classified (HNOC)** None.

## SECTION 3. Composition/information on ingredients

<b>Formula</b>	C <sub>14</sub> H <sub>15</sub> BrClNO <sub>6</sub>
<b>Molecular Weight</b>	408.63 g/mol
<b>Chemical nature</b>	Monoconstituent substance
<b>Synonyms</b>	X-Gal; Indoxyl-Gal; (2S,3R,4S,5R,6R)-2-[(5-bromo-4-chloro-1H-indol-3-yl)oxy]-6-(hydroxymethyl)oxane-3,4,5-triol;

Chemical Name	CAS No	Weight %
5-bromo-4-chloroindol-3-yl-beta-D-galactopyranoside	7240-90-6	100

#### SECTION 4. First-aid measures

<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Inhalation</b>	Move to fresh air.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water.

#### Most important symptoms and effects, both acute and delayed

No information available.

#### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### Advice for emergency responders

<b>General advice</b>	For further assistance, contact your local Poison Control Center.
<b>Protection of first-aiders</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### SECTION 5. Fire-fighting measures

#### Extinguishing media

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable Extinguishing Media</b>	CAUTION: Use of water spray when fighting fire may be inefficient.

#### Specific hazards arising from the chemical

No information available.

#### Explosion Data

<b>Sensitivity to Mechanical Impact</b>	None.
<b>Sensitivity to Static Discharge</b>	None.

#### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### SECTION 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	Ensure adequate ventilation.
<b>Other information</b>	No information available.

**Environmental precautions**

See Section 12 for additional information.

**Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.

## SECTION 7. Handling and storage

**Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

<b>Technical measures/Storage conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.
<b>Packaging material</b>	No information available.
<b>Incompatible products</b>	None known based on information supplied.

## SECTION 8. Exposure controls/personal protection

**Control parameters**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Appropriate engineering controls**

Showers, eyewash stations, and ventilation systems.

**Individual protection measures, such as personal protective equipment**

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

<b>Eye/face protection</b>	Safety glasses with side-shields.
<b>Skin and body protection</b>	Wear protective gloves/clothing.
<b>Respiratory protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9. Physical and chemical properties

**Information on basic physical and chemical properties**

<b>Physical state</b>	Solid
<b>Appearance</b>	Powder
<b>Odor</b>	No information available
<b>Color</b>	White
<b>Odor Threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting point/freezing point</b>	230 °C

<b>Initial boiling point and boiling range</b>	No information available
<b>Flash point</b>	No information available.
<b>Evaporation rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Upper flammability limit</b>	No information available.
<b>Lower flammability limit</b>	No information available.
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	No information available
<b>Relative density</b>	No information available
<b>Solubility</b>	No information available.
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient: n-octanol/water</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available.
<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>Molecular Weight</b>	408.63 g/mol
<b>VOC content</b>	No information available
<b>Viscosity</b>	No information available.
<b>Density</b>	No information available.

## SECTION 10. Stability and reactivity

### Reactivity

No information available.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

<b>Hazardous reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	None under normal processing.

### Conditions to Avoid

No information available.

### Incompatible Materials

None known based on information supplied.

### Hazardous Decomposition Products

None under normal use. Thermal decomposition can lead to release of irritating gases and vapors.

## SECTION 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause irritation of respiratory tract. May be harmful if inhaled.
<b>Eye contact</b>	Contact with eyes may cause irritation.
<b>Skin contact</b>	Contact with skin may cause irritation.
<b>Ingestion</b>	May be harmful if swallowed.

### Information on toxicological effects

This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

#### **Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Symptoms</b>	No information available.
<b>Sensitization</b>	No information available.
<b>Mutagenic effects</b>	No information available.
<b>Carcinogenicity</b>	No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Neurological effects</b>	No information available.
<b>Aspiration Hazard</b>	No information available.

### **SECTION 12. Ecological information**

#### **Ecotoxicity**

Product does not present an aquatic toxicity hazard based on known or supplied information.

<b>Persistence and degradability</b>	No information available.
<b>Bioaccumulation</b>	No information available.
<b>Mobility</b>	No information available.

#### **Other adverse effects**

No information available.

### **SECTION 13. Disposal considerations**

#### **Waste Disposal Methods**

Dispose of in accordance with all applicable national environmental laws and regulations.

#### **Disposal considerations**

Do not empty into drains; dispose of this material and its container in a safe way.

### **SECTION 14. Transport information**

This material is not subject to regulation as a hazardous material for shipping.

### **SECTION 15. Regulatory information**

#### **North American Inventory Listing**

<b>Chemical Name</b>	<b>TSCA 8(b)</b>	<b>TSCA 12(b)</b>	<b>DSL</b>	<b>NDSL</b>
5-bromo-4-chloroindol-3-yl-beta-D-galactopyranoside	Not Listed	Not Listed	Listed	Not Listed

#### **Canadian Workplace Hazardous Materials Information System (WHMIS) Classification**

---

This product does not meet the criteria for classification under the Hazardous Products Act.

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated under applicable state right-to-know regulations

**U.S. FIFRA Label Information**

This product does not contain any substances regulated as pesticides.

**US Commerce Department - Export Administration Regulations Information**

This product does not contain any substances regulated under the Chemical Weapons Convention (CWC).

**U.S. Drug Enforcement Administration Information**

This product does not contain any substances regulated under the DEA.

<b>SECTION 16. Other information</b>
--------------------------------------

**Issuing Date:** 2014-09-03

**Revision Date:** 2014-09-04

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet