

SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Identification of the substance or mixture**

**Product code** R0941  
**Product name** X-Gal Solution, ready-to-use

**Company/undertaking identification**

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**24 hour Emergency Response for Hazardous Materials** Within the USA + Canada: 1-800-424-9300 and +1  
**[or Dangerous Goods] Incident. Spill, Leak, Fire,** 703-527-3887  
**Exposure, or Accident. Call CHEMTREC** Outside the USA + Canada: +1 703-741-5970

**Country Specific Emergency Number (if available):**

CHEMTREC Brazil (Rio De Janeiro) +(55)-2139581449 (português)

**Use as laboratory reagent**  
**Scientific research and development**

SECTION 2: Hazards identification

**GHS - Classification**

**Signal Word**  
WARNING

**Hazard pictograms**



**Health hazards**

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Specific target organ systemic toxicity (single exposure)	Category 3

**Revision date** 08-Nov-2017  
**Product code** R0941

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**Product name** X-Gal Solution, ready-to-use

## Physical hazards

GHS Physical Hazard	Flammable liquids
GHS Physical Hazard Category Number	Category 3

## Environmental hazards

### Hazard Statements

H226 - Flammable liquid and vapor  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation

### Precautionary Statements

#### Prevention

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P264 - Wash hands thoroughly after handling  
P271 - Use only outdoors or in a well-ventilated area

#### Response

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction

#### Storage

P403 + P235 - Store in a well-ventilated place. Keep cool  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

#### Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

### Other hazards

Not Applicable

### HMIS

Health	2
Flammability	3
Reactivity	0

### SECTION 3: Composition/information on ingredients

Component	CAS-No	EINECS-No	Weight %
5-Bromo-4-chloroindol-3-yl-.beta.-D-galactopyranoside 7240-90-6 ( 1-5 )	7240-90-6	-	1-5
Ethyl alcohol 64-17-5 ( 10-30 )	64-17-5	200-578-6	10-30
DMSO 67-68-5 ( 60-100 )	67-68-5	-	60-100

We recommend handling all chemicals with caution.

### SECTION 4: First aid measures

#### Description of first aid measures

<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Immediate medical attention is required.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Get medical attention if symptoms occur.
<b>Inhalation</b>	Remove to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician.
<b>Notes to Physician</b>	Treat symptomatically.

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

H226 - Flammable liquid and vapor H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation

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

If skin irritation occurs: Get medical advice/ attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### SECTION 5: Firefighting measures

#### Extinguishing media

**Suitable extinguishing media**  
**Unsuitable extinguishing media**

Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical.  
No information available.

#### Special hazards arising from the substance or mixture

Not known.

#### Advice for fire-fighters

Wear self-contained breathing apparatus and protective suit.

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Use personal protection equipment. See Section 8 for more detail.

### Environmental precautions

No special environmental precautions required.

### Methods and material for containment and cleaning up

Soak up with inert absorbent material.

### Reference to other sections

See section 8 for more information.

## SECTION 7: Handling and storage

### Precautions for safe handling

Always wear recommended Personal Protective Equipment. See Section 8 for more detail. Do not get in eyes, on skin, or on clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator.

### Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers. Store in accordance with local regulations.

### Specific end use(s)

Use as laboratory reagent. Scientific research and development.

## SECTION 8: Exposure controls/personal protection

### Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
5-Bromo-4-chloroindol-3-yl-.beta.-D-galactopyranoside	None	None	None	None
Ethyl alcohol	1000 ppm 1900 mg/m <sup>3</sup>	None	None	1000 ppm
DMSO	None	None	None	None

**Engineering measures** Ensure adequate ventilation, especially in confined areas

### Exposure controls

#### Personal Protective Equipment

**Respiratory protection** In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

**Hand protection** Glove material: Nitrile rubber with thickness (mm) :5 Break through time (hours) :1 Recommended glove type has not been tested for use with product Information is based on professional Knowledge

**Eye protection** Tight sealing safety goggles

**Skin and Body Protection**      Wear laboratory coat for body protection

**Hygiene measures**              Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls**  
 No special environmental precautions required.

**SECTION 9: Physical and chemical properties**

**Information on basic physical and chemical properties**

<b>Appearance</b>	liquid	
<b>Odor</b>	Mixture has not been tested	
<b>Odor Threshold</b>	Mixture has not been tested	
<b>Melting point / melting range</b>	°C Mixture has not been tested	°F Mixture has not been tested
<b>Boiling point / boiling range</b>	°C Mixture has not been tested	°F Mixture has not been tested
<b>Flash point</b>	°C Mixture has not been tested	°F Mixture has not been tested
<b>Autoignition Temperature</b>	°C Mixture has not been tested	°F Mixture has not been tested
<b>Decomposition temperature</b>	°C Mixture has not been tested	°F Mixture has not been tested
<b>Evaporation rate</b>	No data available	
<b>Flammability (solid, gas)</b>	Not Applicable	
<b>Upper explosion limit</b>	Mixture has not been tested	
<b>Lower explosion limit</b>	Mixture has not been tested	
<b>Vapor Pressure</b>	Mixture has not been tested	
<b>Relative density</b>	Mixture has not been tested	
<b>Specific gravity</b>	No data available	
<b>Solubility</b>	Mixture has not been tested	
<b>Partition coefficient: n-octanol/water</b>	No data available	
<b>Viscosity</b>	Mixture has not been tested	
<b>Explosive properties</b>	Mixture has not been tested	
<b>Oxidizing properties</b>	Mixture has not been tested	

**Other information**  
 No data available.

**SECTION 10: Stability and reactivity**

<b>Reactivity</b>	None known.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous reaction has not been reported.
<b>Conditions to avoid</b>	No information available.
<b>Incompatible materials</b>	No dangerous reaction known under conditions of normal use.
<b>Hazardous decomposition products</b>	No known hazardous decomposition products.

## SECTION 11: Toxicological information

### Information on toxicological effects

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
5-Bromo-4-chloroindol-3-yl-.beta.-D-galactopyranoside	No data available	No data available	No data available
Ethyl alcohol	= 7060 mg/kg (Rat)	No data available	=124.7mg/L(Rat)
DMSO	= 28300 mg/kg (Rat) = 14500 mg/kg (Rat)	No data available	>5.33mg/L(Rat)

### Principal Routes of Exposure

<b>Irritation</b>	Conclusive but not sufficient for classification
<b>Corrosivity</b>	Conclusive but not sufficient for classification
<b>Sensitization</b>	Conclusive but not sufficient for classification
<b>STOT - Single Exposure</b>	Conclusive but not sufficient for classification
<b>STOT - Repeated Exposure</b>	Conclusive but not sufficient for classification
<b>Carcinogenicity</b>	Conclusive but not sufficient for classification
<b>Mutagenicity</b>	Conclusive but not sufficient for classification
<b>Reproductive toxicity</b>	Conclusive but not sufficient for classification
<b>Aspiration hazard</b>	Conclusive but not sufficient for classification

## SECTION 12: Ecological information

### Toxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
5-Bromo-4-chloroindol-3-yl-.beta.-D-galactopyranoside	No data available	No data available	No data available	No data available	No data available
Ethyl alcohol	No data available	Daphnia magna EC50=10800 mg/L (24 h) Daphnia magna EC50=2 mg/L (48 h) Daphnia magna LC509268 - 14221 mg/L (48 h)	No data available	No data available	logPow-0.32
DMSO	Skeletonema costatum EC5012350 - 25500 mg/L (96 h)	Daphnia species EC50=7000 mg/L (24 h)	No data available	No data available	logPow-2.03

**Persistence and degradability** No information available.

**Bioaccumulative potential** No information available.

### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other adverse effects** No information available.

## SECTION 13: Disposal considerations

### Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

## SECTION 14: Transport information

### IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations.

**UN number** Not Applicable

**UN proper shipping name** Not Applicable

**Transport hazard class(es)** Not Applicable

**Packing group** Not Applicable

**Environmental hazards** Not Applicable

**Special precautions for user** Not Applicable

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not Applicable.

## SECTION 15: Regulatory information

Component	US TSCA
5-Bromo-4-chloroindol-3-yl-.beta.-D-galactopyranoside 7240-90-6 ( 1-5 )	-
Ethyl alcohol 64-17-5 ( 10-30 )	Listed
DMSO 67-68-5 ( 60-100 )	Listed

**US Federal Regulations****SARA 313**

This product is not regulated by SARA.

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contains HAPs.

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals.

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight %</u>	<u>Category</u>
Ethyl alcohol	64-17-5	10-30	Carcinogen Developmental

**WHMIS Hazard Class**

B2 - Flammable liquid

D2B - Toxic materials



This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

## SECTION 16: Other information

<b>Reason for revision</b>	SDS sections updated.
<b>Revision number</b>	4
<b>Revision date</b>	08-Nov-2017

Use as laboratory reagent. Scientific research and development.

**References**

- ECHA: <http://echa.europa.eu/>
- TOXNET: <http://toxnet.nlm.nih.gov/>
- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be

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used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

**End of Safety Data Sheet**