

#### MATERIAL SAFETY DATA SHEET

# VIVANTIS TECHNOLOGIES SDN BHD REVONGEN CORPORATION CENTER

Document No.: MSDSrev05\_PC0716

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# **SECTION 1: CHEMICAL IDENTIFICATION**

Catalogue Number: PC0716-100mg; PC0716-1g

Product Name: X-Gal (5-Bromo-4-Chloro-3-Indodyl-beta-D-galactopyranoside)

Intended Use:

For research use only. Not for use in diagnostic procedures.

### **Company Headquarters:**

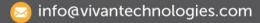
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## **Company Manufacturing:**

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#### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	EC No.	%	<b>GHS Classification</b>
5-Bromo-4-Chloro-3-Indodyl-	7240-90-6	230-640-8	100	Acute Tox. (O) 4: H302
beta-D-galactopyranoside)				Acute Tox. (I) 4: H332
				Acute Tox. (D) 4: H312
				, ,

Synonyms: 5-bromo-4-chloro-1H-indol-3-yl-\(\beta\)-D-galactopyranoside

Chemical formula: C14H15BrCINO6

Molecular weight: 408.6

### **SECTION 3: HAZARDS IDENTIFICATION**

## GHS Classification according to Regulation (EC) No 1272/2008 [CLP]

Acute Toxicity, Inhalation – Category 4
Acute Toxicity, Oral – Category 4
Acute Toxicity, Skin – Category 4

### GHS Label elements, including precautionary statements



Signal word: Warning

#### **Hazard statements**

H332 Harmful if inhaled. H302 Harmful if swallowed. H312 Harmful in contact with skin

### **Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

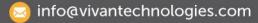
P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P362+364 Take off contaminated clothing and wash it before reuse.

P304+340 If inhaled, remove victim to fresh air and keep at rest in a position comfortable for

breathing.









P312 Call a poison center or doctor if you feel unwell.

P301+312 If swallowed, call a poison center or doctor/physician if you feel unwell.

P330 Rinse mouth.

P302+352 If on skin, wash with plenty of soap and water.

## **Adverse Human Health Effects and Symptoms**

Material may be irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation, ingestion or skin absorption.

May cause eye, skin or respiratory system irritation.

### **SECTION 4: FIRST-AID MEASURES**

In case of eye contact, hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

In case of skin contact, wash off immediately with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

In case of inhalation, move to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

In case of ingestion, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do not induce vomiting unless directed to do so by medical personnel.

#### **SECTION 5: FIRE FIGHTING MEASURES**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Use water spray, alcohol-resistant foam, dry chemical spray or carbon dioxide. A solid water stream may be inefficient.

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

Hazardous decomposition products formed under fire conditions: No data available.

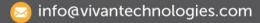
Flash point:

Explosion data – sensitivity to mechanical impact:

Explosion data – sensitivity to static discharge:

No data available.

No data available.









#### SECTION 6: ACCIDENTAL RELEASE MEASURES

For personal protection, wear a NIOSH approved self-contained breathing apparatus, or respirator and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves). Avoid raising and breathing dust and provide adequate ventilation.

For environmental precautions, take steps to avoid release into the environment, if safe to do so. For cleaning up, contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

### **SECTION 7: HANDLING AND STORAGE**

Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid prolonged or repeated exposure. Keep containers tightly closed. Store in accordance with information listed on the product insert.

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection NIOSH approved respirator, as conditions warrant.

Eye/Face protection Wear eye protection such as safety glasses. Hand protection Compatible chemical-resistant gloves.

Body protection Wear lab coat.

Use engineering measures such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

# **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Crystalline Physical state: Solid

Odor: No information available Odor threshold: No information available Density: No information available pH: No information available No information available Melting point: Freezing point: No information available Initial Boiling point: No information available Boiling point: No information available Flash point: No information available No information available Autoignition temperature: Decomposition temperature: No information available









Upper Flammability limit in air:

No data available
Lower Flammability limit in air:

No data available

Oxidizing properties: No information available

Solubility: ~0.5 mg/ml in 1:1 DMSO:PBS (pH 7.2); ~30 mg/ml in

DMSO & DMF

Partition coefficient (n-octanol/water): No data available

Vapor pressure: No information available

Vapor density:No data availableEvaporation rate:No data availableSpecific gravity:No data available

Viscosity: No information available

Specific gravity: 1.080

Solubility: No data available

Viscosity: No information available

Vapor density:

Density:

No data available

No data available

Partition coefficient (n-octanol/water):

Evaporation rate:

No data available

No data available

#### **SECTION 10: STABILITY AND REACTIVITY**

Stable under recommended storage conditions.

Materials to avoid: Strong oxidizing agents

Hazardous decomposition products: Carbon dioxide, carbon monoxide, hydrogen bromide

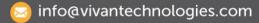
gas, hydrogen chloride gas, nitrogen oxides

Hazardous polymerization: Hazardous polymerization does not occur.

Conditions to avoid: None known based on information supplied

# **SECTION 11: TOXICOLOGICAL INFORMATION**

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.









# **SECTION 12: ECOLOGICAL INFORMATION**

## **Ecotoxicity**

Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

Persistence and biodegradability:
Bioaccumulative potential:
Mobility in soil:
Results of PBT and vPvB assessment:
No data available.
No data available.
No data available.

### **SECTION 13: DISPOSAL CONSIDERATIONS**

Dispose waste material in accordance with all federal, state and local environmental regulation.

# **SECTION 14: TRANSPORT INFORMATION**

### **DOT**

Not dangerous goods.

## ADR/RID

Not dangerous goods.

### **IATA**

Not dangerous goods.

#### **SECTION 15: REGULATORY INFORMATION**

## **International Inventories**

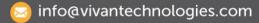
**TSCA** Does not comply

**EINECS/ELINCS** Complies

**ENCS** Does not comply

**IECSC** Complies

KECL Does not comply
PICCS Does not comply
AICS Does not comply









# **U.S Federal Regulations**

**SARA 313** 

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulation, Part 372.

# SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	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)

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

This product does not contain any substances regulated as hazardous air pollutant (HAPs) under Section 112 of the Clean Air Act Amendments of 1990.

# **U.S. State Regulations**

California Proposition 65

This product contains the following Proposition 65 chemicals:

### **International Regulations**

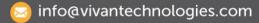
Mexico – Grade

No information available.

#### Canada

**WHMIS Hazard Class** 

Not determined.









#### **SECTION 16: OTHER INFORMATION**

The information contained in this MSDS relates only to the material(s) designed and does not relate to use(s) in combination with any other material, process(es) and /or chemical reaction(s). Vivantis Technologies Sdn. Bhd. provides this information in good faith, from sources believed to be accurate; however, Vivantis assumes no liability for its accuracy or completeness, and thus shall not be held liable for any damage resulting from handling or from contact with the above product.

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