

|   |                            |                            |
|---|----------------------------|----------------------------|
|  | <h1>SAFETY DATA SHEET</h1> | Page : 1                   |
|   |                            | Revised edition no : 0     |
|   |                            | Date : 19 / 01 / 2018      |
|   |                            | Supersedes : 31 / 7 / 2014 |
| <h2>X-GAL</h2>  |                            | <b>XGAL001 – XGAL010</b>   |

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

#### 1.1. Product identifier

**Identification of the product** : Substance  
**Product code** : XGAL001, XGAL005, XGAL010  
**Trade name** : X-GAL  
**Synonyms** : 5-bromo-4-chloro-3-indolyl – $\beta$ -D-galactopyranoside  
(2S,3R,4S,5R,6R)-2-[(5-bromo-4-chloro-1H-indol-3-yl)oxy]-6-(hydroxymethyl)oxane-3,4,5-triol  
**CAS number** : 7240-90-6  
**EC No:** : 230-640-8  
**Molecular Weight** : 408.63 g/mol

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**1.2.1 Relevant identified uses** : For research purposes only  
**1.2.2 Uses advised against** No additional information available

#### 1.3. Details of the supplier of the safety data sheet

**Company identification** : Formedium Ltd.  
Unit 1B Hunstanton Commercial Park  
Norfolk PE365JQ  
Tel: +44(0)1485 609069  
Fax: +44(0)1485 600510  
E-mail: info@formedium.com

#### 1.4. Emergency telephone number

**Emergency Telephone Number:** Tel: +44(0)1485 609069 (local time : 9.00 to 17.00)  
National Poison Information Centre :Europe UK : +44 0845 4647  
(this service is only available to health professionals)  
See [www.toxbase.org](http://www.toxbase.org) for a local poison centre

### SECTION 2 Hazards identification

#### 2.1. Classification of the substance or mixture


Not a dangerous substance according to GHS.  
Classification according to Regulation (EC) No 1272/2008  
Not regulated

#### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008  
Hazards pictograms code : None  
Precautionary statements : None

#### 2.3. Other hazards

None under normal conditions.

|   |                            |                            |
|---|----------------------------|----------------------------|
|  | <h1>SAFETY DATA SHEET</h1> | Page : 2                   |
|   |                            | Revised edition no : 0     |
|   |                            | Date : 19 / 01 / 2018      |
|   |                            | Supersedes : 31 / 7 / 2014 |
| <h2>X-GAL</h2>  |                            | <h3>XGAL01 – XGAL010</h3>  |

**SECTION 3 Composition/information on ingredients**

**Components** : This product is not classified as hazardous.

| Substance name:                                    | Contents | CAS No:   | EC No:    |
|--|----------|-----------|-----------|
| 5-bromo-4-chloro-3-Indolyl- $\beta$ -D-galactoside | 99%      | 7240-90-6 | 230-640-8 |

**SECTION 4 First aid measures**

**4.1. Description of first aid measures**

- Inhalation** : Remove victim to fresh air. If not breathing give artificial respiration.
- Skin contact** : Wash with soap and plenty of water. Wash contaminated clothing before reuse.
- Eye contact** : : Flush eyes with water and copious amounts of water for at least 15 minutes.
- Ingestion** : Rinse mouth with water.  
Never give anything by mouth to an unconscious person.

**4.2. Most important symptoms and effects, both acute and delayed**

**Symptoms and effects, both acute and delayed.** : No data available.

**4.3. Indication of any immediate medical attention and special treatment needed**

**Medical attention and special treatment needed.** : No data available.

**SECTION 5 Fire-fighting measures**

**5.1. Extinguishing media**


**Suitable extinguishing media** : Water spray, alcohol-resistant foam, dry chemical or Carbon Dioxide.

**5.2. Special hazards arising from the substance or mixture**

**Special exposure hazard** : Emits toxic fumes under fire conditions.

**5.3. Advice for firefighters**

**Special protective equipment for fire-fighters** : Wear self contained breathing apparatus for fire fighting if necessary.

|   |                            |                            |
|---|----------------------------|----------------------------|
|  | <h1>SAFETY DATA SHEET</h1> | Page : 3                   |
|   |                            | Revised edition no : 0     |
|   |                            | Date : 19 / 01 / 2018      |
|   |                            | Supersedes : 31 / 7 / 2014 |
| <h2>X-GAL</h2>  |                            | <b>XGAL001 – XGAL010</b>   |

**SECTION 6 Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions** : Avoid dust formation. Avoid breathing vapours, mist or gas.

**6.2 . Environmental precautions**

**Environmental precautions** : Do not let product enter drains.

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

**Clean up methods** : Sweep up and shovel. Keep in suitable closed containers for disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

**6.4. Reference to other sections**

For personal protection see section 8.

**SECTION 7 Handling and storage**

**7.1. Precautions for safe handling**

Avoid inhalation. Avoid contact with eyes, skin and clothing. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

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

Keep container tightly closed in a dry and well ventilated area, protected from light. Recommended storage temperature: >= + 4°C.

**7.3. Specific end use(s)**

**Specific end use(s)** : For research purposes only

**SECTION 8 Exposure controls/personal protection**

**8.1. Control parameters**

**Exposure limit values** : No additional information available.

**8.2. Personal Protective Equipment**

- **Eye protection** : Safety glasses. Approved and tested under appropriate government standards such as NIOSH (US) or EN 166 (EU).
- **Skin and body protection** : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of dangerous substance at the specific workplace.
- **Hand protection** : Handle with gloves. Gloves Use proper glove removal techniques (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
- **Respiratory protection** : Respiratory protection is not required. Where protection from nuisance levels of dust are desired use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- **Hygiene measures** : General industrial hygiene practice.

|   |                            |                            |
|---|----------------------------|----------------------------|
|  | <h1>SAFETY DATA SHEET</h1> | Page : 4                   |
|   |                            | Revised edition no : 0     |
|   |                            | Date : 19 / 01 / 2018      |
|   |                            | Supersedes : 31 / 7 / 2014 |
| <h2>X-GAL</h2>  |                            | <h3>XGAL001 – XGAL010</h3> |

## SECTION 9 Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|   |   |
|---|---|
| <b>Form</b>   | : Powder  |
| <b>Colour</b>   | : White   |
| <b>Odour</b>  | : No data available.  |
| <b>Odour threshold</b>                                | : No data available.  |
| <b>pH</b>   | : No data available.  |
| <b>Melting point</b>                                  | : 230 °C  |
| <b>Boiling point</b>                                  | : No data available.  |
| <b>Flash point</b>                                    | : No data available.  |
| <b>Solubility in water</b>                            | : No data available.  |
| <b>Relative Density</b>                               | : No data available   |
| <b>Vapour density</b>                                 | : No data available.  |
| <b>Vapour pressure</b>                                | : No data available   |
| <b>Partition coefficient: n-octanol / water</b>       | : log Pow : not determined  |
| <b>Evaporation rate</b>                               | : No data available   |
| <b>Flammability (solid, gas)</b>                      | : No data available.  |
| <b>Ignition temperature</b>                           | : No data available.  |
| <b>Decomposition temperature</b>                      | : No data available   |
| <b>Oxidising properties</b>                           | : O and Cl atoms are bounded only to C and H atoms in the structure, so X-GAL should not have oxidizing properties according to the "Guidance on the application of regulation (EC) No 1272/2008" present on the ECHA web site. |
| <b>Explosive properties</b>                           | : X-GAL does not have chemical explosive properties according to the description of explosive groups made in the "Guidance on the application of regulation (EC) No 1272/2008" present on the ECHA web site.                    |
| <b>Upper / Lower flammability or explosive limits</b> | : No data available.  |
| <b>Lower explosion limit</b>                          | : No data available.  |
| <b>Upper explosion limit</b>                          | : No data available.  |
| <b>Viscosity</b>                                      | : No data available.  |

### 9.2. Other information

No additional information available

|   |                            |                            |
|---|----------------------------|----------------------------|
|  | <h1>SAFETY DATA SHEET</h1> | Page : 5                   |
|   |                            | Revised edition no : 0     |
|   |                            | Date : 19 / 01 / 2018      |
|   |                            | Supersedes : 31 / 7 / 2014 |
| <h2>X-GAL</h2>  |                            | <h2>XGAL001 – XGAL010</h2> |

**SECTION 10 Stability and reactivity**

**10.1. Chemical stability**

Heat, light and moisture sensitive. Stable under recommended storage conditions.

**10.2. Conditions to avoid**

Stable under normal conditions.

**10.3. Materials to avoid**

Strong oxidizing agents.

**10.4. Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas, Hydrogen bromide gas.

**SECTION 11 Toxicological information**

**11.1. Information on toxicological effects**

|   |  |
|---|--|
| <b>Acute toxicity</b>                                     | : No data available  |
| <b>Skin corrosion / irritation</b>                        | : No data available  |
| <b>Serious eye damage / eye irritation</b>                | : No data available  |
| <b>Respiratory or skin sensitisation</b>                  | : No data available  |
| <b>Germ cell mutagenicity</b>                             | : No data available  |
| <b>Carcinogenicity</b>                                    | : IARC : No component of this product present at levels greater than or equal to 0.1% is identified as probable possible or confirmed as a human carcinogen by IARC. |
| <b>Reproductive toxicity</b>                              | : No data available  |
| <b>Specific target organ toxicity – single exposure</b>   | : No data available  |
| <b>Specific target organ toxicity – repeated exposure</b> | : No data available  |
| <b>Aspiration hazard</b>                                  | : No data available  |
| <b>Potential health effects</b>                           |  |
| <b>Inhalation</b>   | : May be harmful if inhaled. May cause respiratory tract irritation.   |
| <b>Ingestion</b>  | : May be harmful if swallowed.   |
| <b>Skin</b>   | : May be harmful if absorbed through skin. May cause skin irritation.  |
| <b>Eyes</b>   | : May cause eye irritation.  |

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

**Additional information** : RTECS: Not available.

**SECTION 12 Ecological information**

**12.1. Toxicity**

No data available.

**12.2. Persistence and degradability**

No additional information available.

**12.3. Bioaccumulative potential**

No additional information available.

|   |                            |                            |
|---|----------------------------|----------------------------|
|  | <h1>SAFETY DATA SHEET</h1> | Page : 6                   |
|   |                            | Revised edition no : 0     |
|   |                            | Date : 19 / 01 / 2018      |
|   |                            | Supersedes : 31 / 7 / 2014 |
| <h2>X-GAL</h2>  |                            | <h3>XGAL01 – XGAL010</h3>  |

#### SECTION 12 Ecological Information (continued)

##### 12.4. Mobility in soil

No additional information available.

##### 12.5. Results of PBT and vPvB assessment

No data available.

##### 12.6. Other adverse effects

No data available.

#### SECTION 13 Disposal considerations

##### 13.1. Waste treatment methods

**Product:** Contact a licenced waste disposal service to dispose of this material. Disposal should be made in accordance with existing disposal practices employed for infectious waste at your institution. Observe all federal, state and local environmental regulations.

**Contaminated packaging:** Dispose of as unused product.

#### SECTION 14 Transport information

##### 14.1. UN Number

Not applicable

: Not classified as dangerous in the meaning of transport regulations.

##### **General information**

##### 14.2. UN Proper shipping name

Not applicable.

##### 14.3. Transport Hazard Class(es)

Not applicable.

##### 14.4. Packing group

Not applicable.

##### 14.5. Environmental hazards

Not applicable.

##### 14.6. Special precautions for user

Not applicable.

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

Not applicable.

#### SECTION 15 Regulatory information

##### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EU) No. 2015/830.

##### 15.2. Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

#### SECTION 16 Other information

##### **Further information**

: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Formedium Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

##### **Revision**

: Complete SDS revision

End of document

#### Formedium Ltd.

Unit 1B Hunstanton Commercial Park Norfolk PE365JQ

Tel: +44(0)1485 609069

Fax: +44(0)1485 600510

E-mail: info@formedium.com

In case of emergency :+44(0)1485 609069