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## 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

### 1.1 Product identifiers

Product name: 5-Bromo-4-chloro-3-indolyl  $\alpha$ -D-galactopyranoside

Product code: 70039

CAS Number: 107021-38-5

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

Identified uses: Detection of enzyme activity.

Uses advised against: None identified.

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

Company: Glycosynth Ltd

14 Craven Court, Winwick Quay, Warrington, Cheshire WA2 8QU, UK

Telephone: 01925 575075

Fax: 01925 575121

Email: info@glycosynth.co.uk

### 1.4 Emergency telephone number

Emergency Phone Number: +44 1925 575 075

Hours of operation: 8.30 – 17.00 (Local business hours weekdays)

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## 2. HAZARD IDENTIFICATION

### 2.1 Classification of the substance or mixture

Not a hazardous substance according to Regulation (EU) No. 1272/2008.

### 2.2 Label elements

The product does not need to be labelled in accordance with EC directives.

### 2.3 Other Hazards

None.

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Ingredient name: 5-Bromo-4-chloro-3-indolyl  $\alpha$ -D-galactopyranoside

Formula:  $C_{14}H_{15}BrClNO_6$

Molecular Weight: 408.6

Synonyms: X- $\alpha$ -Gal, X-alpha-Gal

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## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

Eyes: Flush eyes with water as a precaution.

Skin: Wash with water, then soap and water.

Ingestion: Rinse mouth with water.

Inhalation: Remove to fresh air.

If problems occur, seek medical attention.

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

No data available.

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

No data available.

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## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media

Use dry powder, carbon dioxide, foam, or water extinguishers.

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

Carbon oxides, nitrogen oxides, hydrogen bromide gas, hydrogen chloride gas.

### **5.3 Advice for firefighters**

No special measures required.

### **5.4 Further information**

No data available.

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## **6. ACCIDENTAL RELEASE MEASURES**

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

Avoid breathing dust. Avoid contact with eyes and skin. Wear suitable personal protective equipment if necessary.

### **6.2 Environmental precautions**

No special precautions. Avoid discharge into drains and waterways whenever possible.

### **6.3 Methods and materials for containment and clean up**

Transfer to a suitable container for disposal.

### **6.4 Reference to other sections**

See section 8 of this SDS for personal protective equipment and section 13 of this SDS for disposal.

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## **7. HANDLING AND STORAGE**

### **7.1 Precautions for safe handling**

Ensure there is sufficient exhaust ventilation at places where dust is formed. Avoid contact with eyes and skin.

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

To prevent deterioration, the product should be stored in tightly closed containers, under nitrogen, in a freezer or cold room at -20 degrees centigrade. The product may deteriorate slightly if exposed to light and humidity for prolonged periods.

### **7.3 Specific end uses**

Detection of enzyme activity.

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## **8. EXPOSURE CONTROL/PERSONAL PROTECTION**

### **8.1 Control parameters**

Contains no substances with occupational exposure limit values.

### **8.2 Exposure control**

General industrial hygiene practice. Engineering measure: Ensure there is sufficient ventilation of the area.

Personal protective equipment:

Eye/face protection: Wear appropriate safety glasses.

Hand protection: Wear gloves to prevent skin exposure.

Body protection: Appropriate protective clothing to prevent skin contact.

Respiratory protection: Not required.

Other personal protection advice: none available.

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## **9. PHYSICAL AND CHEMICAL PROPERTIES**

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

- |   |                    |
|---|--------------------|
| (a) Appearance:                                   | Solid or powder.   |
| (b) Odour:  | No data available. |
| (c) Odour threshold:                              | No data available. |
| (d) Ph:   | No data available. |
| (e) Melting point:                                | No data available. |
| (f) Initial boiling point and boiling range:      | No data available. |
| (g) Flash point:                                  | No data available. |
| (h) Evaporation rate:                             | No data available. |
| (i) Flammability (solid, gas):                    | No data available. |
| (j) Upper/lower flammability or explosive limits: | No data available. |

(k) Vapour pressure:	No data available.
(l) Vapour density:	No data available.
(m) Relative density:	No data available.
(n) Solubility:	No data available.
(o) Partition coefficient: n-octanol/water:	No data available.
(p) Auto-ignition temperature:	No data available.
(q) Decomposition temperature:	No data available.
(r) Viscosity:	No data available.
(s) Explosive properties:	No data available.
(t) Oxidising properties:	No data available.

## 9.2 Other safety information

None.

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available.

### 10.2 Chemical stability

Stable under the recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available.

### 10.4 Conditions to avoid

No data available.

### 10.5 Incompatible materials

Very strong oxidising agents.

### 10.6 Hazardous decomposition products

None.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity:	No data available.
Skin corrosion/irritation:	No data available.
Serious eye damage/irritation:	No data available.
Respiratory or skin sensitisation:	No data available.
Germ cell mutagenicity:	No data available.
Carcinogenicity: IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity:	No data available.
Specific target organ – single exposure:	No data available.
Specific target organ – repeated exposure:	No data available.
Aspiration hazard:	No data available.
Potential health effects:	Inhalation: No data available. Ingestion: No data available. Skin: No data available. Eyes: No data available.
Signs and symptoms of exposure:	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

No data available.

## 12.2 Persistence and degradability

No data available.

## 12.3 Bioaccumulative potential

No data available.

## 12.4 Mobility in soil

No data available.

## 12.5 Results of PBT and vPvB assessment

This substance contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Other adverse effects

No data available.

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## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

The substance is not classified as hazardous waste according to Directive 2008/98/EC. Dispose according to local regulations.

Contaminated packaging: Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

### 14.1 UN number

ARD/RID: No data available.      IMDG: No data available.      IATA: No data available.

### 14.2 UN proper shipping name

ARD/RID: Not dangerous goods.

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

### 14.3 Transportation hazard class(es)

ARD/RID: No data available.      IMDG: No data available.      IATA: No data available.

### 14.4 Packaging group

ARD/RID: No data available.      IMDG: No data available.      IATA: No data available.

### 14.5 Environmental hazard

ARD/RID: No data available.      IMDG: No data available.      IATA: No data available.

### 14.6 Special precautions for user

No data available.

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## 15. REGULATORY INFORMATION

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

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

No data available.

### 15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

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## 16. OTHER INFORMATION

Revision number: 6, Revision date: 16/08/17, Reason: Updated according to Regulation (EU) No. 2015/830.

The above information is believed to be correct to the best of our knowledge. The information given in this SDS should be used as a guide and does not constitute the user's own assessment of workplace risk as required by the Health and Safety legislation currently in force. We cannot accept liability for any loss, injury or damage which may result from handling or use of this product. All chemicals should be handled only by competent personnel within a suitably controlled environment.