



## **MATERIAL SAFETY DATA SHEET**

According to EC Directive 91/155 EC

Date: 01/05/10

### 1. Identification of the substance/preparation and of the company/undertaking

#### 1.1 Product Details:

Trade Name: Isopropyl- $\beta$ -D-thiogalactopyranoside (IPTG)

Chemical Formula: C<sub>9</sub>H<sub>18</sub>O<sub>5</sub>S

Catalogue Number: BIO-37036, 5g

CAS Number: 367-93-1

#### 1.2 Company Details:

Manufacturer/ Supplier: Bioline  
16 The Edge Business Centre  
Humber Road  
London  
NW2 6EW  
Tel: +44 (0)20 8830 5300  
Fax: +44 (0)20 8452 2822

Further Information Obtainable from:

Technical Services  
Details as above

#### 1.3 Emergency Details:

24-Hour Contact in case of emergency:

Vergiftungs-Informationen-Zentrale  
Mathilden Strasse 1  
79106 Freiburg  
GERMANY  
Tel: +49 (0) 761 19240

### 2. Composition/ Information on Ingredients

#### 2.1 Chemical Characterisation:

Description: Mixture of substances listed below with non-hazardous additions.

Dangerous Components: Isopropyl- $\beta$ -D-thiogalactopyranoside.

Purity: >98%

### 3. Hazards Identification

#### 3.1 Precautionary Statements:

R 36/37/38: Irritating to eyes, respiratory system and skin.

S 22: Do not breathe dust

S 24/25: Avoid contact with skin and eyes

### 4. First Aid Measures

#### 4.1 After Inhalation:

Remove to fresh air. If irritation persists consult a doctor immediately.

#### 4.2 After Swallowing:

Wash mouth out with water provided the person is conscious. Consult a doctor immediately.

#### 4.3 After Contact with Eyes:

Immediately flush eyes with copious amounts of water for several minutes. Consult a doctor immediately.

#### 4.4 After Contact with Skin:

Immediately wash with soap and copious amounts of water.

### 5. Fire Fighting Measures

#### 5.1 Suitable Extinguishing Media:

Water spray, CO<sub>2</sub>, foam or dry chemical powder. Large fires should be confronted with water spray or alcohol resistant foam.

#### 5.2 Unusual Fire Hazard:

Special fire fighting procedures: Under high temperatures this product will burn in air producing toxic gasses.

#### 5.3 Fire Fighting Protective Measures:

Wear protective clothing to prevent contact with the skin and eyes.

Wear self-contained breathing equipment to prevent inhalation of explosive or combustion gasses.

### 6. Accidental Release Measures

#### 6.1 Personal Precautions:

Ensure ventilation is adequate. Wear rubber gloves. Wear also suitable eye protection and a dust mask. Avoid contact and inhalation by not creating a dust cloud.

#### 6.2 Environmental Precautions:

Do not allow to enter the surface or ground water. Do not allow to enter sewers.

#### 6.3 Clean-up Measures:

Sweep up any spilled powder and place in a sealed container for disposal. Shut off all sources of ignition. Evacuate the area. Ventilate the area and wash the spill site with acetone or ethanol, then soap and water after material pickup is complete.

## 7. Handling and Storage

### 7.1 Handling:

Avoid contact with eyes and skin. Avoid inhalation of dust by using mechanical local exhaust ventilation such as a powder cabinet. Avoid contact with skin and eyes and clothing by wearing appropriate protective clothing. See below.

### 7.2 Storage:

To avoid deterioration, the product should be stored in tightly closed containers. Store at -20°C. Store in the dark. Extremely Hygroscopic.

## 8. Exposure Controls/ Personal Protection

### 8.1 Engineering Measures:

Use in a fume cupboard or under Local Exhaust Ventilation.

### 8.2 Personal Protection:

Respiratory Protection: Wear a suitable powder-mask as a minimum precaution.

Hand Protection: Gloves should be worn, either rubber or chemical resistant.

Eye Protection: Wearing chemical safety goggles is advised, as is the availability of eye-wash stations.

Skin Protection: Long-sleeved lab coats should be worn during handling. Safety deluge showers should be available.

Hygiene Practices: Avoid contact with skin or eyes. Do not place in mouth.

Do not eat, drink or smoke when handling this product. Upon completion of the use of this product, dispose of protective gloves safely and wash hands thoroughly with soap and water.

## 9. Physical and Chemical Properties

### 9.1 Physical Properties

Appearance: Off white crystals.

Odour: Characteristic.

### 9.1 Chemical Properties

pH: 5% solution in water pH5-7

Melting point/Melting range : 110-113°C

Boiling point/Boiling range: N/A

Flash Point: Not Applicable

Autoflammability: Not Applicable

Explosive Properties: Not Applicable, treat as combustible solid.

Relative Density: Undetermined

Solubility in Water: >55%. Soluble in Ethanol, Methanol and dimethylformamide.

## 10. Stability and Reactivity

### 10.1 Stability

Product is stable under normal handling and storage conditions.

Avoid excess heat, flame and pressure. Avoid light and moisture.

Thermal decomposition: None if used under ordinary conditions.

Product may deteriorate if in direct sunlight or humidity.

## 10.2 Reactivity

Dangerous Reactions: Avoid contact with strong oxidising agents, acids, alkali and water.

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sulphur oxides and Mercapto derivatives may be formed at high temperatures.

Hazardous Polymerisation: Will not occur.

## 11. Toxicological Information

### 11.1 Primary Irritant Effect:

R36/37/38: Irritating to eyes, respiratory system and skin.

Adverse health effects may occur from vapours in poorly ventilated areas, including irritation of the mucous membranes of the nose, throat, respiratory tract and symptoms of headache and vomiting.

### 11.2 Sensitisation Effects:

Via prolonged exposure, a sensitising effect through inhalation is possible. Adverse health effects may occur from vapours in poorly ventilated areas, and may include irritation of the mucous membranes of the nose, throat, respiratory tract and symptoms of headache and vomiting.

Via prolonged exposure, a sensitising effect on the skin is possible.

### 11.3 Further Toxicological Information

It is not yet known whether this product has any carcinogenic properties.

Full toxicity data is not yet available, and all due care should be exercised.

This product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations, as issued in the latest version.

## 12. Ecological Information

### 12.1 Environmental Effects

Environmental Fate/Stability: Unknown

Effects on Plants or Animals: Unknown

### 12.2 Water Hazard

This product is slightly hazardous for water.

Do not allow product to come into contact with surface or ground water, and do not allow it to reach the sewage system.

## 13. Disposal Considerations

### 13.1 Product Disposal:

Dissolve according to local regulations or mix with a combustible solvent and burn in an approved chemical incinerator equipped with an after-burner or scrubber.

### 13.2 Packaging Disposal:

Unclean packaging should be disposed of according to official regulations and as in section 13.1.

Observe all laws concerning health and pollution.

## 14. Transport Information

### 14.1 Land Transport:

Product does not belong to a hazard class of any international agreements on the transport and packaging of dangerous goods.

#### 14.2 Maritime Transport:

This product is not a marine pollutant.

#### 14.3 Air Transport

Product does not belong to any hazard classification.

### 15. Regulatory Information

#### 15.1 Labelling According to EU Guidelines

This product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials.

General safety regulations should always be observed when handling chemicals.

### 16. Other Information

The information provided in this Material Safety Data Sheet (MSDS) is accurate to the best of our present knowledge. However, this shall not constitute a guarantee for any specific product features. All substances and preparations may present unknown hazards and should be used with caution. Bioline shall not be held liable for any damage resulting from the handling of or from contact with the above product. The information supplied in this MSDS shall not establish a legally valid contractual relationship.