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Rev. 3

## 1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND THE COMPANY/UNDERTAKING

**Product Name:** IPTG / X-Gal Ready-to-use Spray Solution  
**Product Code:** IB02150  
**Recommend Use:** For further manufacturing use only  
Not for human or animal drug use  
**Company:** IBI SCIENTIFIC  
7445 Chavenelle Road  
Dubuque, IA 52002  
**Emergency Tele. Number:** 3E Company (Acct# 9027) 1-800-451-8346 / (001) 760-602-8703  
**Company Tele. Number:** 1-800-253-4942 / (001) 563-690-0484  
**E-Mail Address:** [info@ibisci.com](mailto:info@ibisci.com)

## 2. HAZARDOUS IDENTIFICATION

### GHS – Classification

**Classification:** Toxic to Reproduction 1B Flammable Liquid 4 Skin Irritant 2 Eye Irritant 2  
**Signal Word:** Danger



**Hazard Statements:** H227-Combustible liquid \* H360-May damage fertility of the unborn child \* H315-Causes skin irritation \* H319-Causes serious eye irritation \* H335-May cause respiratory irritation

**Precautionary Statements:** P210-Keep away from heat/sparks/open flames/hot surfaces – No smoking \* P261-Avoid breathing dust/fume/gas/mist/vapors/spray \* P280-Wear protective gloves/protective clothing/eye protection/face protection \* P302+P352-IF ON SKIN: Wash with plenty of soap and water \* P304+P340-IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing \* P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

|                        |   |                                 |
|------------------------|---|---------------------------------|
| <b>Chemical Name:</b>  | <u>beta-D-Galactopyranoside, 1-methyl 1-thio-</u> | <u>1-Methyl-2-pyrrolidone</u>   |
| <b>EC No.:</b>         | EEC No. 206-703-0                                 | EEC No. 212-828-1               |
| <b>REACH Reg. No.:</b> | Not Available                                     | Not Available                   |
| <b>CAS No.:</b>        | 367-93-1  | 872-50-4                        |
| <b>Weight %:</b>       | 1 - 5   | 75 - 85                         |
| <b>Classification:</b> | -   | Xi; R36/37/38; Repr. Cat.2; R61 |

### 4. FIRST AID MEASURES

|                            |   |
|----------------------------|---|
| <b>Eye Contact:</b>        | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                              |
| <b>Skin Contact:</b>       | Wash off immediately with soap and plenty of water, removing all contaminated clothes and shoes.                    |
| <b>Inhalation:</b>         | Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.           |
| <b>Ingestion:</b>          | Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. |
| <b>Notes to Physician:</b> | Treat symptomatically.  |

### 5. FIRE FIGHTING MEASURES

|  |  |
|--|--|
| <b>Flammable Properties:</b>                                 | Combustible liquid   |
| <b>Flash Point:</b>  | Not determined   |
| <b>Suitable Extinguishing Media:</b>                         | Dry chemical, CO <sub>2</sub> , water spray, regular foam  |
| <b>Hazardous Combustion Products:</b>                        | Carbon oxides  |
| <b>Explosion Data</b>  |  |
| Sensitivity to Mechanical Impact:                            | Not sensitive  |
| Sensitivity to Static Discharge:                             | Not sensitive  |
| <b>Protective Equip. &amp; Precautions for Firefighters:</b> | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equiv.) and full protective gear. |

### 6. ACCIDENTAL RELEASE MEASURES

|                                 |   |
|---------------------------------|---|
| <b>Personal Precautions:</b>    | Avoid contact with skin and eyes. Use personal protective equipment. Ensure adequate ventilation.   |
| <b>Methods for Containment:</b> | Prevent further leakage or spillage, if safe to do so.  |
| <b>Methods for Cleaning Up:</b> | Absorb with sand or vermiculite. Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete. |

### 7. HANDLING AND STORAGE

|                               |  |
|-------------------------------|--|
| <b>Handling:</b>              | Handle in accordance with good industrial hygiene and safety practice. Heat sensitive. Light sensitive. Hygroscopic.           |
| <b>Storage:</b>               | Keep container tightly closed in a dry, cool, and well-ventilated place. Protect from light. Keep away from heat. Hygroscopic. |
| <b>Incompatible Products:</b> | Strong oxidizing agents. Strong acids.   |

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Measures:** Showers, Eyewash Stations, Ventilation Systems

### **Personal Protective Equipment**

Eye/Face Protection: Safety glasses with side shields.

Skin & Body Protection: Wear protective gloves/clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|   |   |
|---|---|
| <b>Appearance:</b>                              | Clear, colorless to yellow  |
| <b>Odor:</b>                                    | No information available  |
| <b>Odor Threshold:</b>                          | No information available  |
| <b>Decomposition Temp. °C:</b>                  | No information available  |
| <b>Freezing Point:</b>                          | No information available  |
| <b>Initial Boiling Point:</b>                   | No information available  |
| <b>Physical State:</b>                          | Liquid  |
| <b>pH:</b>                                      | No data available   |
| <b>Flash Point (mixture):</b>                   | 76°C  |
| <b>Flash Point (1-Methyl-2-pyrrolidone):</b>    | 91°C  |
| <b>Flammable Properties:</b>                    | Combustible liquid  |
| <b>Autoignition Temp. °C:</b>                   | No data available   |
| <b>Boiling Point/Range:</b>                     | 191.7°C   |
| <b>Melting Point/Range:</b>                     | May start to solidify at 0°C                                      |
| <b>Flammability Limits (Air):</b>               | <u>Upper</u> -No data available * <u>Lower</u> -No data available |
| <b>Explosion Limits</b>                         | No information available  |
| <b>Explosive Properties:</b>                    | No information available  |
| <b>Oxidizing Properties:</b>                    | No information available  |
| <b>Evaporation Rate:</b>                        | No information available  |
| <b>MMHG @ 37.8°C:</b>                           | No data available   |
| <b>Vapor Density:</b>                           | 3.4   |
| <b>Specific Gravity:</b>                        | No data available   |
| <b>Solubility:</b>                              | Slightly soluble in water   |
| <b>Partition Coefficient (n-octanol/water):</b> | No data available   |
| <b>Viscosity:</b>                               | No information available  |

## 10. STABILITY AND REACTIVITY

|  |   |
|--|---|
| <b>Stability:</b>                        | Stable under recommended storage conditions         |
| <b>Incompatible Products:</b>            | Strong oxidizing agents. Strong acids.              |
| <b>Conditions to Avoid:</b>              | Protect from heat. Protect from light. Hygroscopic. |
| <b>Hazardous Decomposition Products:</b> | Carbon oxides,                                      |
| <b>Hazardous Polymerization:</b>         | Hazardous polymerization does not occur.            |

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

Product Information: Irritating to eye, skin, and respiratory system.  
 Chemical Name: 1-Methyl-2-pyrrolidone  
 LD50 Oral: 3598mg/kg (Rat)  
 LD50 Dermal: 2500mg/kg (Rat)  
 2000mg/kg (Rabbit)  
 LC50 Inhalation: 3.1mg/L (Rat) 4hr

### Chronic Toxicity

Chronic Toxicity: Suspected teratogen

**Target Organ Effects:** Spleen, Bone marrow.

## 12. ECOLOGICAL INFORMATION

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

**Chemical Name:** 1-Methyl-2-pyrrolidone

Toxicity to Algae: EC50 > 500mg/L (72hr)-

Toxicity to Fish: LC50 = 1072mg/L Pimephales promelas (96h)  
 LC50 = 4000mg/L Leuciscus idus (96hr)  
 LC50 = 832mg/L Lepomis macrochirus (96hr)  
 LC50 = 1400mg/L Poecillia reticulata (96hr)

Microtox -

Daphnia Magna (Water Flea): EC50 = 3135mg/L (96h)  
 EC50 = 4897mg/L (48h)

Log Pow -0.46

## 13. DISPOSAL CONSIDERATIONS

**Water Disposal Method:** Dispose of material in accordance with all federal, state, and local regulations.

**Contaminated Packaging:** Dispose of in accordance with all federal, state, and local regulations.

## 14. TRANSPORT INFORMATION

### IATA

Not regulated

### US DOT

Not regulated

## 15. TOXICOLOGICAL INFORMATION

### REACH Title VII Restrictions

|  |   |                               |
|--|---|-------------------------------|
| Chemical Name:   | No information available                          | <u>1-Methyl-2-pyrrolidone</u> |
| Dangerous Substances:  | <u>beta-D-Galactopyranoside, 1-methyl 1-thio-</u> | Not applicable                |
| Organic Solvents:  | Not applicable                                    | Not applicable                |
| Harmful Substances Whose Names are to be indicated on the Label:                               | Not applicable                                    | Not applicable                |
| Pollution Release and Transfer Registry (Class II):  | Not applicable                                    | Not applicable                |
| Pollution Release and Transfer Registry (Class I):   | Not applicable                                    | Not applicable                |
| Poison and Deleterious Substances Control Law:   | Not applicable                                    | Not applicable                |
| ISHA – Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying: | Not applicable                                    | Not applicable                |
| ISHA – Harmful Substances Requiring Permission:  | Not applicable                                    | Not applicable                |
| Toxic Chemical Classification Listing (TCCL):  | Not applicable                                    | Not applicable                |
| Toxic Release Inventory (TRI) – Group I:   | Not applicable                                    | Not applicable                |
| Toxic Release Inventory (TRI) – Group II:  | Not applicable                                    | Not applicable                |

**International Inventories**

|                |                 |
|----------------|-----------------|
| TSCA:          | Complies        |
| 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/chemicals which are subject to the reporting requirements of the Act & Title 40 of the Code of Federal Regulations, part 372.

|                           |                                    |
|---------------------------|------------------------------------|
| Chemical Name:            | 1-Methyl-2-pyrrolidone - #872-50-4 |
| Weight (%):               | 75 - 85                            |
| SARA 313 – Threshold (%): | 1.0                                |

**SARA 311/312 Hazard Categories**

|                                   |     |
|-----------------------------------|-----|
| Acute Health Hazard               | Yes |
| Chronic Health Hazard             | Yes |
| Fire Hazard                       | Yes |
| 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**

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

**CERCLA**

**U.S. State Regulations**

**California Proposition 65**

|                      |                                    |
|----------------------|------------------------------------|
| Chemical Name:       | 1-Methyl-2-pyrrolidone - #872-50-4 |
| California Prop. 65: | Developmental                      |

**State**

|               |   |
|---------------|---|
| Massachusetts | X |
| New Jersey    | X |
| Pennsylvania  | X |
| Illinois      | - |
| Rhode Island  | X |

**International Regulations**

**Mexico**

No information available

**Canada**

No information available

**WHMIS Hazard Class**

B3 – Combustible liquid

D2A – Very toxic materials

D2B – Toxic materials



Chemical Name:

1-Methyl-2-pyrrolidone - #872-50-4

NPRI:

X

**16. OTHER INFORMATION**

**Issuing Date:** 14-Oct-2013

**Revision Date:** 29-Jun-2018

**Revision Note:** Updated address and logo

**Recommended Restrictions:** No information available

**Disclaimer:** The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal, and release; and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the test.

**End of Safety Data Sheet**