

**CERTIFICATE OF ANALYSIS**

PRODUCT NAME: IPTG  
(Isopropyl- $\beta$ -(D)-Thiogalactopyranoside)

CAS NO. 367-93-1

BATCH NO. 20/MFM/2639

MANUFACTURING DATE: 15 April 2020

RE-TEST DATE: 14 April 2023

MOLECULAR FORMULA: C<sub>9</sub>H<sub>18</sub>O<sub>5</sub>S

MOLECULAR WEIGHT: 238.3

| TESTS                         | SPECS                         | RESULTS  |
|-------------------------------|-------------------------------|----------|
| Description                   | White Crystalline Powder      | Complies |
| Solubility (Sol. 5%,in water) | Clear and colourless solution | Complies |
| pH (Sol. 5%, in water)        |                               | 7.0      |
| Melting Point                 | 112.9 – 113.6°C               | Complies |
| Moisture Content by KF        | NMT 1.0% w/w                  | 0.1% w/w |
| 1,4-Dioxane                   | Should be absent              | <1ppm    |
| Specific Optical Rotation     | -28.5° to -34.5°              | -31.9°   |
| Purity by HPLC                | NLT 98.0%                     | 100.0%   |
| Purity by TLC                 | NLT 98.0%                     | 100.0%   |
| IR (KBr)                      | Conforming as standard        | Complies |

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11<sup>th</sup> November 2020