Lactose monohydrate, Hi-AR™ / ACS

**Product Information**

**Product Identifier**

- CAS No.: 64044-51-5
- EC No.: 200-559-2
- Molecular Formula: \( \text{C}_{12}\text{H}_{22}\text{O}_{11}.\text{H}_{2}\text{O} \)
- Molecular Weight: 360.31
- Synonym: Milk sugar
- HS Code: 1702 11 10
- Storage: Below 30°C
- Shelf life: 4 years

**Technical Specification**

- **Appearance**: White to off-white crystals or powder or solid
- **Solubility**: 100 mg soluble in 1 mL of water
- **Clarity**: 10% aqueous solution in boiling water is colourless and clear.
- **Specific rotation**: +54.4° to +55.9° (c = 10% in water/NH3 at 25°C, on anhydrous substance)
- **Melting range**: 210 - 220°C (dec.)
- **Water (K.F.)**: 4.00 - 6.00%
- **Dextrose**: Passes test
- **Sucrose**: Passes test
- **Iron**: <= 0.0005%
- **Heavy metals (as Pb)**: <= 0.0005%
- **Insoluble matter**: <= 0.005%
- **Residue on ignition**: <= 0.03%
- **Assay (GC/HPLC)**: min. 99.50%

**Safety Information**

- **UN No.**: Not dangerous goods
- **Class**: -
- **Packing Group**: -
- **RTECS**: Not available
- **WGK**: 3

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