**Product Information**

**Product Number:**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>RM570G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name</td>
<td>D-Mannitol, Hi-AR™, Sterile (γ - irradiated)</td>
</tr>
<tr>
<td>Synonym</td>
<td>Mannite</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>C₆H₁₂O₆</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>182.17</td>
</tr>
<tr>
<td>CAS No.</td>
<td>69-65-8</td>
</tr>
<tr>
<td>HS Code</td>
<td>2905 43 00</td>
</tr>
<tr>
<td>Shelf Life</td>
<td>2 years</td>
</tr>
</tbody>
</table>

**Technical Specification**

- **Appearance:** White - Cream powder.
- **Solubility:** Freely soluble in water, practically insoluble in ethanol(96%)
- **Reaction:** Reaction of 1M aqueous solution at 25°C.
- **pH:** min. 4.00 max. 7.50
- **Sterility Testing:** No growth is observed after 14 days for Bacteria at 30-35°C and for fungi at 20-25°C.
- **Cultural response:** Cultural response observed after an incubation at 35-37°C for 18-24 hours in Phenol Red Mannitol Broth (M570) using D-Mannitol, A.R. sterile (gamma irradiated) as an ingredient.

**Escherichia coli ATCC 25922**
- Growth: Luxuriant
- Acid: Positive reaction, yellow colour.
- Gas: Positive reaction.

**Klebsiella pneumoniae ATCC 13883**
- Growth: Luxuriant
- Acid: Positive reaction, yellow colour.
- Gas: Positive reaction.

**Proteus vulgaris ATCC 13315**
- Growth: Luxuriant
- Acid: Negative reaction, no colour change.
- Gas: Negative reaction.

**S.Typhimurium ATCC 14028**
- Growth: Luxuriant
- Acid: Positive reaction, yellow colour.
- Gas: Positive reaction.

**Shigella flexneri ATCC 12022**
- Growth: Luxuriant
- Acid: Positive reaction, yellow colour.
- Gas: Negative reaction.
### Chemical Analysis
- Calcium (Ca) : \(\leq 0.001\%\)
- Iron (Fe) : \(\leq 0.0005\%\)
- Lead (Pb) : \(\leq 0.0005\%\)
- Arsenic (As) : \(\leq 0.0001\%\)
- Copper (Cu) : \(\leq 0.0005\%\)
- Sulfate (SO\(_4\)) : \(\leq 0.005\%\)
- Melting Range : 165.0 - 170.0°C
- FTIR : Matches with the standard pattern
- Specific optical rotation \([\alpha]_20/D\) : +137.0° to +145.0° (c= 1% in ammonium molybdate solution at 25°C)
- Water insoluble matter : \(\leq 0.01\%\)
- Reducing sugars (C\(_6\)H\(_{12}\)O\(_6\)) : \(\leq 0.05\%\)
- Acidity (CH\(_3\)COOH) : \(\leq 0.005\%\)
- Loss on drying (at 105°C, 2hr) : \(\leq 0.050\%\)
- Assay (GC/HPLC) : 99.50 - 102.00%

### Risk and Safety Information
- WGK : 2
- RTECS : OP2060000
- Storage Temperature (°C) : Store below 30°C

### Transport Information
- Marine Pollutant : -
- ADR/RID : Not Dangerous Goods
- IMDG : Not Dangerous Goods
- IATA : Not Dangerous Goods