

Dextrose Anhydrous / Monohydrate

Pharmaceutical filler and tonicity agent

Product Description

Dextrose (D-Glucose) Anhydrous and Monohydrate are used as fillers, tonicity agents and energy sources in oral powder, parenteral and ORS formulations. Available to BP/USP standards.

Certificate of Analysis

HSN Code: 1702.30

CAS Number: Anhydrous: 50-99-7 / Monohydrate: 5996-10-1

Classification: Pharmaceutical Excipient — F

Parameter	Specification	Test Method
Appearance	White crystalline powder	Visual
Assay (dried basis)	99.5–101.5%	Polarimetry
Identification	Positive optical rotation and reducing sugar tests	Chemical / Polarimetry
Optical Rotation	+52.5° to +53.3°	USP <781>
Loss on Drying (Anhydrous)	"d 0 . 1 %	USP <731>
Loss on Drying (Monohydrate)	7.5–9.5%	USP <731>
pH (5% solution)	3.5–6.5	USP <791>
Heavy Metals	"d 5 p p m	USP <231>

Physical Properties

Appearance: White crystalline powder

Molecular Formula: $C_6H_{12}O_6$ (anhydrous)

Molecular Weight: 180.16 g/mol

Solubility: Freely soluble in water; slightly soluble in ethanol

Melting Point: Anhydrous: 146°C / Monohydrate: 83°C

Packing: 25 kg HDPE bags with polyethylene inner liner; 50 kg bags available

Storage: Store in a cool, dry, well-ventilated area. Below 25°C.

Safety & Handling

PPE: Gloves, safety goggles, dust mask, lab coat

Hazards:

- Dust may cause mild respiratory irritation
- Combustible dust