Trehalose Dihydrate

$C_{12}H_{22}O_{11}\cdot 2H_2O$ · CAS 6138-23-4 · Trehalose dihydrate, crystalline powder

CATALOG TDS — CONFIRMED IN WRITING AT QUOTATION

IDENTITY / FORM	FORMULA	CAS	PRIMARY ASSAY
Trehalose dihydrate, crystalline powder	$C_{12}H_{22}O_{11}\cdot 2H_2O$	6138-23-4	98.0–101.0% (HPLC-RI)
METHOD	**MINIMUM ORDER**	**LEAD TIME**	**STANDARD PACK**
HPLC-RI or HPLC with refractive index detection	1 kg	3–10 days	1 kg foil pouch · 25 kg fiber drum

DESCRIPTION

A trehalose dihydrate with mild sweetness and low hygroscopicity, for protein protection, bakery and beverage systems where the hydrate is part of the specification.

SWEETNESS

45% of sucrose, indicative

TASTE NOTE

Mild, clean sweetness with no strong cooling; at high dose it can add body rather than sweetness.

SPECIFICATION

PARAMETER	SPECIFICATION	METHOD / NOTE
Assay (dried basis)	98.0–101.0% (HPLC-RI)	As stated
Appearance	White crystalline powder	As stated
Moisture	9.0–11.0% (dihydrate)	As stated
pH (10% solution)	4.5–7.0	As stated
Solubility	Freely soluble in water	As stated
Particle size	≥95% through 60 mesh	As stated
Bulk density	0.55–0.85 g/mL	As stated
Other sugars	≤1.0% (HPLC)	As stated
Heavy metals	Pb ≤0.5 · As ≤0.5 · Cd ≤0.5 · Hg ≤0.1 mg/kg	As stated
Microbiology	APC ≤1,000 cfu/g · yeast and mould ≤100 cfu/g · E. coli and Salmonella absent	As stated
Marker / profile	Trehalose 98.0–101.0%, dihydrate moisture 9–11%	Identity
Solubility	Freely soluble in water; low hygroscopicity and a clean, mild sweetness.	Matrix dependent

PARAMETER	SPECIFICATION	METHOD / NOTE
Starting use level	2–10% in beverages, bakery and protein systems, depending on the function	Application dependent
pH behaviour	Stable across normal food pH.	Matrix dependent

APPLICATIONS

- Bakery
- Beverages
- Protein systems
- Confectionery
- Frozen desserts

AVAILABLE FORMS

- Crystalline powder, 60 mesh
- Fine powder
- Anhydrous on request
- Liquid on request

PACKING

- 1 kg foil pouch
- 25 kg fiber drum

STORAGE

Store in a cool, dry, well-ventilated area, away from direct sunlight and moisture. Keep the pack closed after sampling. The lot-specific retest date is shown on the batch COA.

DOCUMENTATION RELEASED WITH EACH LOT

- Batch-specific certificate of analysis
- Technical data sheet and safety data sheet
- Allergen, GMO, origin and residual-solvent statements
- Third-party reports on request

Catalog document. This TDS describes the grade we can quote. The final specification, pack and documentation are confirmed in writing before the order. It is not a batch COA and does not report a result for a specific lot.

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