Trehalose Dihydrate

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

INDICATIVE SPECIFICATION — 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

SPECIFICATION

PARAMETER	SPECIFICATION	METHOD / NOTE
Assay (dried basis)	98.0–101.0% (HPLC-RI)	Analytical
Appearance	White crystalline powder	Specification
Moisture	9.0–11.0% (dihydrate)	Specification
pH (10% solution)	4.5–7.0	Specification
Solubility	Freely soluble in water	Specification
Particle size	≥95% through 60 mesh	Sieve
Bulk density	0.55–0.85 g/mL	Tapped cylinder
Other sugars	≤1.0% (HPLC)	Analytical
Heavy metals	Pb ≤0.5 · As ≤0.5 · Cd ≤0.5 · Hg ≤0.1 mg/kg	Specification
Microbiology	APC ≤1,000 cfu/g · yeast and mould ≤100 cfu/g · E. coli and Salmonella absent	Specification
Marker / profile	Trehalose 98.0–101.0%, dihydrate moisture 9–11%	Identity / ratio
Appearance	White crystalline powder	Visual
Solubility	Freely soluble in water; low hygroscopicity and a clean, mild sweetness.	Matrix dependent
Standard packaging	1 kg foil pouch · 25 kg fiber drum	Food-grade liner

APPLICATIONS

- Bakery
- Beverages
- Protein systems
- Confectionery

AVAILABLE FORMS

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

- Frozen desserts

WHAT TO CONFIRM BEFORE ORDERING

- Name the hydrate; dihydrate and anhydrous are different usable solids.
- Ask for the moisture by Karl Fischer, not only loss on drying.
- Trehalose is only ~45% as sweet as sucrose; do not formulate on a 1:1 sweetness assumption.

> **Indicative document.** This sheet describes the grade we can quote; it is not a batch COA and does not confirm a result for a specific lot. Final specification, contaminant limits and documentation are agreed in writing before the order. The identity, assay basis, profile and method are release parameters, not marketing descriptions.

DOCUMENTATION RELEASED WITH EACH LOT

DOCUMENT	CONTENT	SCOPE
Certificate of analysis	Assay, identity, physical parameters, contaminant panel and the release decision for the lot.	Batch-specific
Technical data sheet	Identity, form, CAS, specification ranges, solubility, bulk density, storage and packing.	Product-level
Safety data sheet	Sixteen sections covering hazards, handling, storage, transport and emergency response.	Grade-specific
Allergen and GMO statements	Major allergens, gluten, animal-derived inputs and GMO status.	Batch-specific
Origin and traceability record	Manufacturing site and the link between the lot and the retained sample.	Batch-specific
Residual-solvent statement	The crystallisation system and the solvent class, where applicable.	Batch-specific

HOW TO REQUEST THIS GRADE

01 · BRIEF

Send the target specification, quantity, application and destination market.

02 · COUNTER-SPEC

We confirm what can be matched and the documents available for the grade.

03 · SAMPLE & QUOTE

A sample with its own COA, followed by packing, lead time and terms in writing.

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