Isomaltulose

$C_{12}H_{22}O_{11}$ · CAS 13718-94-0 · 6-O-α-D-glucopyranosyl-D-fructose, crystalline

CATALOG TDS — CONFIRMED IN WRITING AT QUOTATION

IDENTITY / FORM	FORMULA	CAS	PRIMARY ASSAY
6-O-α-D-glucopyranosyl-D-fructose, crystalline	$C_{12}H_{22}O_{11}$	13718-94-0	≥98.0% (HPLC-RI)
METHOD	**MINIMUM ORDER**	**LEAD TIME**	**STANDARD PACK**
HPLC-RI	1 kg	3–10 days	1 kg foil pouch · 25 kg fiber drum

DESCRIPTION

A crystalline isomaltulose for slow-release carbohydrate and sugar replacement, with a sucrose-like taste, low hygroscopicity and a clear distinction from isomalt.

SWEETNESS

40–50% of sucrose, indicative

TASTE NOTE

Clean, sucrose-like sweetness with no strong cooling; the body is closer to sugar than a high-intensity sweetener.

SPECIFICATION

PARAMETER	SPECIFICATION	METHOD / NOTE
Isomaltulose (dry basis)	≥98.0% (HPLC-RI)	As stated
Appearance	White crystalline powder	As stated
Moisture	≤0.5%	As stated
pH (10% solution)	4.5–7.0	As stated
Solubility	Soluble in water; low hygroscopicity	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-RI)	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	Isomaltulose ≥98%	Identity
Solubility	Soluble in water; low hygroscopicity and a clean solution.	Matrix dependent
Starting use level	5–30% in beverages, bakery and confectionery, depending on the sugar replacement	Application dependent

PARAMETER	SPECIFICATION	METHOD / NOTE
pH behaviour	Stable across normal food pH; acidic hydrolysis should be checked.	Matrix dependent

APPLICATIONS

- Beverages
- Bakery
- Confectionery
- Sports nutrition
- Dairy

AVAILABLE FORMS

- Crystalline powder, 60 mesh
- Granular
- Fine powder

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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