

SPECIFICATION

CRYSTALLINE FRUCTOSE NATURAL HEALTHY SWEETENER

- A Non GMO, food grade crystalline fructose, which is processed from high fructose corn syrup.
- An ideal choice of sweetener which enhances natural and healthy sweetness in foods and beverages.
- Levosweet[®] is nutritive sweeteners, into a pure white free-flowing crystalline material.
- Levosweet[®] conforms to the EP, USP, FCC and Codex Alimentarius requirements for Crystalline Fructose

General Characteristics

Formula	: C ₆ H ₁₂ O ₆
Molecular weight	: 180
Appearance	: White crystals
Taste	: Sweet
Odor	: Odorless
Solubility (g / 100ml at 25oC)	: Very soluble in water, soluble in ethanol. Sparingly soluble in ether.

Analysis

Identification	Value	Method
Fructose (%)	> 99.5	HPLC, on d.s.
Dextrose (%)	< 0.1	Enzymatic– Glucose Oxidase
pH	5.0-7.0	pH-meter, 10% solution
Moisture (%)	< 0.2	Karl Fischer
Specific rotation	(-91.0) - (-93.5)	Polarimeter
Ash (%)	< 0.01	ICUMSA conductivity
Calcium (ppm)	<5	ICP / MSD
Iron (ppm)	<5	ICP / MSD
Sulphate (ppm)	<50	SM 4500:SO ₄ ²⁻ :E
Chloride (ppm)	<40	SM 4500-Cl:C
HMF (absorbance)	< 0.32	Spectrophotometer, EP method
Color of solution (Icumsa)	<20	ICUMSA
SO ₂ (ppm)	<10	Spectrophotometer

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Bulk density (gr/lit) 700-900 Free flowing volume

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Granulation

Product	Code No	Microns	Limits
Levosweet ^M	LS1	On 100	min. 80%
		On 250	max. 20%
Levosweet ^C	LS2	On 200	min. 95%
		On 600	max. 15%
Levosweet ^N	LS3	On 600	min. 90%
		On 1250	max. 10%

Microbiology

Analysis	Unit	Value	Method
Total count	n/g	<100	TS 7703 EN ISO 4833
Yeasts	n/g	<10	ISO 21527
Moulds	n/g	<10	ISO 21527
Coliforms	n/g	negative	ISO 4831
E. Coli	n/g	<10	ISO 7251
Staphylococcus aureus (Coa+)	n/g	<50	TS 6582-1 EN ISO 6888-1
Salmonella	n/50 g	negative	PCR (BAX System)
Sulfite reducing clostridium	n/g	<10	ISO 15213
Enterobacteraceae	n/g	<10	ISO 21528-2
Aerobic mesophilic sporeforming bacteria	n/g	<10	Harrigan
Aerobic thermophilic sporeforming bacteria	n/g	<10	AOAC 972.45
Anaerobic mesophilic spores count	n/g	<10	In-House Method
Bacillus cereus	n/g	<50	ISO 7932
Listeria monocytogenes	n/25 g	negative	TS EN ISO 11290-1

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Heavy Metals

Identification	Value	Method
Total (ppm)	< 1.0	ICP / MSD
Arsenic (ppm)	< 0.5	ICP / MSD
Lead (ppm)	< 0.1	ICP / MSD
Cadmium (ppm)	< 0.1	ICP / MSD
Mercury (ppm)	< 0.03	ICP / MSD

Pesticides

Identification	Value	Method
Pesticide Residues	≤ 10 ppb	GC - MS

Mycotoxins

Total Aflatoxins	<4 ppb
Aflatoxin G1	<2 ppb
Aflatoxin B1	<1 ppb
Aflatoxin G2	<2 ppb
Aflatoxin B2	<1 ppb
Ochratoxin A	<10 ppb

Levosweet® Nutritional Information

(for 100g)

Energy	398Kcal; 1663KJ
Protein	0g
Total Carbohydrate	99.8g
Dextrose	<0.1g
Fructose	>99.8g
Fat	0g
Ash	<0.1g

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Sodium	0g
Fiber	0g

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GMO

Levosweet® is Non-GMO and according to EC regulation No. 1829/2003/EC and 1830/2003/EC, the product has a non-labeling status.

Allergens

Levosweet® is Allergen free according to EC regulations: 2000/13/EC annex IIIa, 2003/89/EC, 2006/142/EC and ALBA list.

Levosweet® does not contain food additives, food colors, antioxidants, preservatives or material of animal origin.

Storage

Levosweet® is acceptably stable to air and heat, but it is hygroscopic. Keep package closed. Sealed bags should be stored in-doors under cool, dry conditions. Optimum storage and handling conditions for Levosweet® are 25°C or lower and less than 60% relative humidity.

Shelf Life

24 months stored sealed under recommended conditions.

Packaging

Levosweet® crystalline fructose is packed in 25kg bags or 1000kg big bags.

Tat Nişasta's plant is certified ISO 9001, ISO 14001, OHSAS 18001, ISO 22000, BRC

Levosweet® is Kosher and Halal certified.

Elif TOSMUR ÖZTÜRK
Quality Control & Assurance Manager

LevoSweet

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Spect. No : KG.SPME.21
Rev. No : 0
Rev. Date : -
Page : 5/5
Approved by Quality Dept.