



## **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.*
- *Crystalline fructose is nutritive sweeteners, into a pure white free-flowing crystalline material.*
- *Crystalline fructose conforms to the EP, USP, FCC and Codex Alimentarius requirements for Crystalline Fructose*

### **General Characteristics**

Formula	: C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>
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**

<b>Identification</b>	<b>Value</b>	<b>Method</b>
Fructose (%)	> 99.5	HPLC, on d.s.
pH	5.0-7.0	pH-meter, 10% solution
Moisture (%)	< 0.2	Karl Fischer
Specific rotation	(-91.0) - (-93.5)	Polarimeter
Sulphated Ash (%)	< 0.1	FCC
HMF (ppm)	< 40	Spectrophotometer
Color of solution (Icumsa)	<20	ICUMSA
Acidity (mL)	<0.5	Titration with 0.02N NaOH
SO <sub>2</sub> (ppm)	<10	Spectrophotometer
Bulk density (gr/lit)	800-1000	Free flowing volume
Calcium (ppm)	<5	External lab.*
Sulphate (ppm)	<50	External lab.*
Chloride (ppm)	<40	External lab.*



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### Granulation

Product	Code No	Microns	Limits
<i>Crystalline Fructose<sup>C</sup></i>	FS2	On 200	min. 80%
		On 600	max. 25%
<i>Crystalline Fructose<sup>N</sup></i>	FS3	On 600	min. 90%
		On 1250	max. 20%

### Microbiology

Analysis	Unit	Value	Method
Total count	n/g	<100	Filtration method
Yeasts	n/g	<10	Filtration method
Moulds	n/g	<10	Filtration method
Coliforms	n/g	negative	External lab.*
E. Coli	n/g	negative	External lab.*
Staphylococcus aureus	n/g	negative	External lab.*
Salmonella	n/50g	negative	External lab.*
Sulfite reducing clostridium	n/g	<10	External lab.*
Enterobacteraceae	n/g	<10	External lab.*
Aerobic mesophilic sporeforming bacteria	n/g	<10	External lab.*
Aerobic thermophilic sporeforming bacteria	n/g	<10	External lab.*
Anaerobic mesophilic spores count	n/g	<10	External lab.*
Bacillus cereus	n/g	<10	External lab.*
Listeria monocytogenes	n/25g	negative	External lab.*



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**Heavy Metals**

<b>Analysis</b>	<b>Unit</b>	<b>Value</b>	<b>Method</b>
Iron (ppm)	ppm	< 1.0	External lab.*
Copper	ppm	<1.0	External lab.*
Arsenic (ppm)	ppm	< 0.1	External lab.*
Lead (ppm)	ppm	< 0.1	External lab.*
Cadmium (ppm)	ppm	< 0.1	External lab.*
Mercury (ppm)	ppm	< 0.03	External lab.*

**Pesticides**

<b>Analysis</b>	<b>Unit</b>	<b>Value</b>	<b>Method</b>
Pesticide Residues	ppb	≤ 10	External lab.*

**Mycotoxins**

<b>Analysis</b>	<b>Unit</b>	<b>Value</b>	<b>Method</b>
Toplam Aflatoxin	ppb	< 4	External lab.*
Aflatoxin G1	ppb	< 2	External lab.*
Aflatoxin B1	ppb	< 1	External lab.*
Aflatoxin G2	ppb	< 2	External lab.*
Aflatoxin B2	ppb	< 1	External lab.*
Ochratoxin A	ppb	< 3	External lab.*

**Nutritional Information**

**(for 100g)**

Energy	398Kcal; 1663KJ
Protein	0g
Total Carbohydrate	100g
Dextrose	<0.1g
Fructose	>99.9g
Fat	0g
Ash	<0.1g
Sodium	0g
Fiber	0g



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### **GMO**

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

### **Allergens**

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

Crystalline fructose does not contain food additives, food colors, antioxidants, preservatives or material of animal origin.

### **Storage**

Crystalline fructose 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 are 25°C or lower and less than 60% relative humidity.

### **Shelf Life**

24 months stored sealed under recommended conditions.

### **Packaging**

Crystalline fructose is packed in 25kg bags or 1000kg big bags.