

KENT FOODS Ltd, Albex House, Westpoint Business Park, 1 Marchfield Drive, Paisley, PA3 2RB T: 0044 [0]141 882 9999 E: technical@kentfoods.co.uk

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## **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, BP, 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**

| Identification             | Value             | Mothod                   |
|----------------------------|-------------------|--------------------------|
| Identification             | Value             | Method                   |
| Fructose (%)               | > 99.5            | HPLC, on d.s.            |
| Foreign Sugar (%)          | < 0.5             | 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)               | <0.15             | Titration with 0.1N NaOH |
| SO2 (ppm)                  | <10               | Spectrophotometer        |
| Bulk density (gr/lit)      | 800-900           | Free flowing volume      |
|                            |                   |                          |

<sup>\*</sup>Accredited method is preferred



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| Calcium (ppm)  | <5  | External lab.* |
|----------------|-----|----------------|
| Sulphate (ppm) | <50 | External lab.* |
| Chloride (ppm) | <40 | External lab.* |
|                |     |                |

## NATURAL HEALTHY SWEETENER

## Granulation

| Product               | Code No | Microns | Limits   |
|-----------------------|---------|---------|----------|
| Levosweet <b>M</b> ®  | LS1     |         |          |
| Levosweet <b>MC</b> ® | LS4     | On 200  | min. 95% |
|                       |         | On 600  | max. 1%  |
| Levosweet <b>C</b> ®  | LS2     | On 200  | min. 95% |
|                       |         | On 600  | max. 15% |
| Levosweet <b>N</b> ®  | LS3     | On 600  | min. 90% |
|                       |         | On 1250 | max. 10% |
| Levosweet <b>MF</b> ® | LS5     | On 200  | min. 40% |
|                       |         | < 200   | max.60%  |

Note: There could be some lumps naturally in MF & M type products and also before using,fructose solution should be filtered.

## **Microbiology**

| <u>wiici obiology</u> |      |       |                   |
|-----------------------|------|-------|-------------------|
| Analysis              | Unit | Value | Method            |
| Total count           | n/g  | <100  | Filtration method |
| Yeasts                | n/g  | <10   | Filtration method |
| Moulds                | n/g  | <10   | Filtration method |
|                       |      |       |                   |

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| 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.* |

## NATURAL HEALTHY SWEETENER

## Heavy Metals

| neavy ivietais |      |        |                |  |
|----------------|------|--------|----------------|--|
| Analysis       | Unit | Value  | Method         |  |
| 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**

| Analysis           | Unit | Value | Method         |
|--------------------|------|-------|----------------|
| Pesticide Residues | ppb  | ≤ 10  | External lab.* |

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## **Mycotoxins**

| Analysis         | Unit | Value | Method         |  |
|------------------|------|-------|----------------|--|
| 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.* |  |
|                  |      |       |                |  |

## **Levosweet® Nutritional Information**

## (for 100g)

| Energy             | 400Kcal; 1673KJ |
|--------------------|-----------------|
| Protein            | 0g              |
| Total Carbohydrate | 100g            |
| Dextrose           | <0.1g           |
| Fructose           | >99.9g          |
| Fat                | 0g              |
| Ash                | <0.1g           |
| Sodium             | 0g              |
| Fiber              | 0g              |

## NATURAL HEALTHY SWEETENER

## **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**

 $\label{lem:eq:lemon} Levosweet \ensuremath{^{\circledcirc}}\ is \ Allergen \ free \ according \ to \ EU \ Regulation \ (EC) \ No. \ 1169/2011 \ and \ ALBA \ list.$ 

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

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## **SPECIFICATION CRYSTALLINE FRUCTOSE**

## **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.

<sup>\*</sup>Accredited method is preferred