

# technical

## Clearsweet® 95% Unrefined Liquid Dextrose Corn Syrup

### Product Information

Cargill's Clearsweet® 95% Unrefined Liquid Dextrose Corn Syrup is an unrefined corn syrup with a high dextrose content and is ideal for use as a fermentation feedstock.

### REPRESENTATIVE CHEMICAL AND PHYSICAL DATA

#### Chemical and Physical Properties

|                          |                 |
|--------------------------|-----------------|
| Dextrose Equivalent (DE) | 95 - 99         |
| Refractive Index (20°C)  | 1.4633 – 1.4656 |
| Total Solids (%)         | 70.5 – 71.5     |
| Moisture (%)             | 28.5 – 29.5     |
| Sulfated Ash (%)         | 0.4 max         |
| pH (as is)               | 3.0 – 5.0       |
| pH (1:1)                 | 3.4 – 5.4       |
| Sulfur Dioxide (ppm)     | 100 max         |

#### Typical Carbohydrate Profile

(% Dry Basis)

|                    |      |
|--------------------|------|
| Dextrose           | 95.0 |
| Fructose           | 1.0  |
| Maltose            | 2.5  |
| Maltotriose        | 0.5  |
| Higher Saccharides | 1.0  |

### Density and Viscosity Factors

| Temp<br>(°F) | Specific<br>Gravity<br>(Temp°F/60°F) | Pounds/<br>Gallon<br>(Temp°F) | Pounds/<br>Gallon<br>(DSB) |
|--------------|--------------------------------------|-------------------------------|----------------------------|
| 110          | 1.3321                               | 11.11                         | 7.89                       |
| 120          | 1.3288                               | 11.08                         | 7.87                       |
| 140          | 1.3219                               | 11.02                         | 7.83                       |

### Regulatory/Labeling Data

United States

GRAS Affirmation Labeling CFR 21 184.1865  
Corn Syrup

Canada

FDR Labeling B.18.016  
Glucose Syrup; Glucose (contains sulphites)

### Shelf Life and Storage

The recommended storage temperature range for Clearsweet® 95% Unrefined Liquid Dextrose Corn Syrup is 130 - 140°F. Syrups stored for extended periods (over 6 months) should be evaluated periodically for fitness of use.

contact

#### Sweeteners Regional Offices

|   |  |
|---|--|
| 2173 Embassy Drive<br>Lancaster, PA 17603<br>Tel: 800-734-8215<br>Fax: 717-431-3120 | 400 E. Diehl Road, Suite 330<br>Naperville, IL 60563<br>Tel: 800-344-1633<br>Fax: 630-505-7846 |
|---|--|

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Updated 14-Aug-12

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### Nutritional Information

#### Nutritional Profile

The following typical information may be of use in answering questions regarding ingredients in corn sweeteners. Unless specified otherwise, all values are reported on a commercial or "as is" basis.

| Nutrient             | Amount |           | Nutrient           | Amount |     |
|----------------------|--------|-----------|--------------------|--------|-----|
| Moisture             | 19.1   | %         | Acetic Acid        | 5.6    | ppm |
| pH                   | 4.51   |           | Citric Acid        | 8.3    | ppm |
| Nitrogen (total)     | 114.3  | ppm       | Formic Acid        | 3.2    | ppm |
| Protein (total)      | 714.4  | ppm       | Lactic Acid        | 142.9  | ppm |
| Ash                  | 0.08   | %         |                    |        |     |
| <b>Carbohydrates</b> |        |           | <b>Ions/Metals</b> |        |     |
| DP <sub>1</sub>      | 95.6   | %         | Ammonium           | 9.6    | ppm |
| DP <sub>2</sub>      | 3.1    | %         | Calcium            | 68.8   | ppm |
| DP <sub>3</sub>      | 0.7    | %         | Chloride           | 86.3   | ppm |
| DP <sub>4+</sub>     | 0.6    | %         | Copper             | < 0.5  | ppm |
|                      |        |           | Iron               | < 1.7  | ppm |
| <b>Vitamins</b>      |        |           | Magnesium          | 36.3   | ppm |
| Biotin               | < 2    | mcg/100 g | Manganese          | < 0.6  | ppm |
| Folate               | < 8    | mcg/100 g | Nitrate            | 6.2    | ppm |
| Niacin               | < 0.03 | mg/100 g  | Phosphate (free)   | 32.8   | ppm |
| Pantothenic Acid     | < 0.20 | mg/100 g  | Phosphorus         | 26.4   | ppm |
| Riboflavin           | < 0.02 | mg/100 g  | Potassium          | 162.6  | ppm |
| Thiamin              | < 0.01 | mg/100 g  | Sodium             | 172.3  | ppm |
| Vitamin A            |        |           | Sulfate            | 383.8  | ppm |
| Retinol              | < 50   | IU/100 g  | Zinc               | < 2    | ppm |
| Beta Carotene        | < 50   | IU/100 g  |                    |        |     |
| Total                | < 20   | RE/100 g  |                    |        |     |

\*DP<sub>1</sub> + DP<sub>2</sub>

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