Technical Description

04/2018

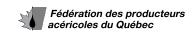
| TECHNICAL DESCRIPTION | |
|--|--|
| Product | Sugar obtained by concentrating 100% natural raw sap, or "maple water." Extraction of maple sap, concentration by osmosis and boiling to a sugar density of 66 °Brix. |
| Advantages | 100% pure product, harvested exclusively from Canadian forests. No added preservatives. Natural product and from renewable sources. Maple industry means Quebec and Canadian forests are protected. |
| Potential Certifications | Organic. Kosher. As confirmed by each individual producer. |
| Origin | Quebec, Canada. |
| Declaration in the list of ingredients | Maple Sugar. |
| Codes | Provided by processor. |
| Compliance | Meets the requirements of the Règlement sur les aliments [Food regulations] (P-29, r. I) administered by the Ministry of Agriculture, Fisheries and Food of Quebec; the Règlement des producteurs acéricoles sur les normes de qualité et le classement [Maple Syrup producer regulations on quality standards and classification] (chapter M-35.I, r. I8) administered by the Federation of Quebec Maple Syrup Producers; and the Maple Products Regulations (C.R.C., c.289) administered by the Canadian Food Inspection Agency. |
| Commercial sterility | Yes, drying method. |
| GMOs | None. |
| Pesticides | No pesticide residue Maple syrup production does not require the use of products such as antibiotics, antiparasitics, pesticides, herbicides, growth promoters or similar. The risk of finding residues of these substances in maple sugar is therefore practically zero, in line with the recommendations in force in Quebec. |
| Allergens | None added at the sugar bush. |

| COMPOSITION | |
|-------------|--------------------|
| Ingredients | Maple sugar. |
| Brix | 66.0 to 68.9 °Brix |
| рН | 5.5 to 8.0 |

| SPECIFICATIONS | | | | | | |
|-------------------------|---|--|--|--|--|--|
| Organoleptic Properties | Crystals melt in the mouth. Colour varies from | Granulated sugar with more-or-less fine or coarse crystals depending on the sugar category Crystals melt in the mouth. Colour varies from light to dark. Sweet taste and characteristic maple scent with a note of caramelized sugar (toffee). | | | | |
| Density | Apparent density: Min. 625 g/L Compacted density: Max. 740 g/L | 11 | | | | |
| Aw | 0.34 | | | | | |
| Particle Size | Fine sugar 88.5%: < 250 microns (< mesh 60) 11.5%: 420 < 250 microns (mesh 40 < 60) | Sugar with more-or-less fine crystals 59%: < 250 microns (< mesh 60) 34%: 420 < 250 microns (mesh 40 < 60) 7%: > 840 microns (> mesh 20) | | | | |

Analysis

| MICROBIOLOGY | Results | Method |
|---------------------------------------|--------------|----------|
| Yeasts (CFU/g) | <5 | MFHPB-22 |
| Molds (CFU/g) | <5 | MFHPB-22 |
| Aerobic mesophilic bacteria (CFU/g) | <5 | MFHPB-18 |
| Anaerobic mesophilic bacteria (CFU/g) | <5 | MFHPB-18 |
| Total coliform count (CFU/g) | <10 | MFHPB-34 |
| Pseudomonas aeruginosa (CFU/g) | <10 | ILMA-017 |
| Bacillus cereus (CFU/g) | <25 | MFLP-42 |
| E. Coli (CFU/g) | <10 | MFHPB-34 |
| Clostridium spp. (CFU/g) | Not detected | ILMA-61 |
| Staphylococcus aureus (CFU/g) | <10 | MFLP-21 |
| Salmonella (CFU/g) | Not detected | MFHPB-20 |



Nutritional Values

| NUTRIENTS | Typical Values per 100 g | | | | |
|---------------------|--------------------------|------------------------|---------|---------|---------|
| CARBOHYDRATES | Average | Number of Observations | Minimum | Maximum | Method |
| Sucrose (g) | 94.78 | 22 | 91.08 | 97.50 | HPLC-RI |
| Glucose (g) | 0.35 | 22 | 0.23 | 0.55 | HPLC-RI |
| Fructose (g) | 0.19 | 22 | 0.12 | 0.28 | HPLC-RI |
| Total Sugar (g) | 95.33 | 22 | 91.56 | 98.22 | HPLC-RI |
| Complex Sugars (g) | 1.55 | 22 | 1.23 | 2.25 | HPLC-RI |
| Total carbohydrates | 96.88 g | | • | | |

| FATS | Average | Number of Observations | Minimum | Maximum | Method |
|---------------------|---------|------------------------|---------|---------|---------|
| Saturated (g) | BQL* | 23 | BQL* | BQL* | HPLC-RI |
| Trans (g) | BQL* | 23 | BQL* | BQL* | HPLC-RI |
| Omega-3 (g) | BQL* | 23 | BQL* | BQL* | HPLC-RI |
| Omega-6 (g) | BQL* | 23 | BQL* | 0.01 | HPLC-RI |
| Monounsaturated (g) | BQL* | 23 | BQL* | 0.03 | HPLC-RI |
| Polyunsaturated (g) | BQL* | 23 | BQL* | 0.03 | HPLC-RI |
| Cholesterol (mg) | BQL* | 23 | BQL* | BQL* | HPLC-RI |

^{*} BQL = Below Quantifiable Limit

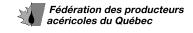
Nutritional Values (cont'd.)

| NUTRIENTS MINERALS | Typical Values per 100 g | | | | | |
|---------------------------|--------------------------|------------------------|---------|---------|---------|--|
| | Average | Number of Observations | Minimum | Maximum | Method | |
| Aluminium (mg) | 0.04 | 22 | BQL* | 0.1 | HPLC-RI | |
| Calcium (mg) | 155.3 | 22 | 141 | 175 | HPLC-RI | |
| Copper (mg) | 0.025 | 22 | 0.02 | 0.04 | HPLC-RI | |
| Iron (mg) | 0.099 | 20 | 0.05 | 0.18 | HPLC-RI | |
| Magnesium (mg) | 32.56 | 23 | 26.4 | 45.5 | HPLC-RI | |
| Manganese (mg) | 4.034 | 21 | 2.62 | 6.19 | HPLC-RI | |
| Potassium (mg) | 338.5 | 21 | 313.1 | 364 | HPLC-RI | |
| Sodium (mg) | 0.73 | 23 | 0.54 | 0.91 | HPLC-RI | |
| Zinc (mg) | 1.535 | 23 | 0.93 | 2.69 | HPLC-RI | |
| Phosphate (mg) | 0.84 | 21 | 0.62 | 1.08 | HPLC-RI | |
| Total minerals | 533.66 mg | | • | • | | |

| VITAMINS | Average | Number of Observations | Minimum | Maximum | Method |
|----------------------|---------|------------------------|---------|---------|---------|
| Thiamin (BI) (mg) | 0.03 | 23 | BQL* | 0.07 | HPLC-RI |
| Riboflavin (B2) (mg) | BQL* | 22 | BQL* | BQL* | HPLC-RI |
| Niacin (B3) (mg) | 0.18 | 22 | 0.14 | 0.23 | HPLC-RI |
| Total vitamins | 0.21 mg | | | | |

| AMINO ACIDS | Average | Number of Observations | Minimum | Maximum | Method |
|-------------------|---------|------------------------|---------|---------|---------|
| Total amino acids | 4.1 mg | 2 | 2.62 | 5.58 | HPLC-RI |

^{*} BQL = Below Quantifiable Limit



Nutritional Values (cont'd.)

| NUTRIENTS | Typical Values per 100 g | | | | | |
|---------------------|--------------------------|------------------------|---------|---------|---------|--|
| ORGANIC ACIDS | Average | Number of Observations | Minimum | Maximum | Method | |
| Oxalic (mg) | 1.71 | 21 | 1.07 | 2.73 | HPLC-RI | |
| Tartaric (mg) | BQL* | 0 | BQL* | BQL* | HPLC-RI | |
| Quinic (mg) | BQL* | 0 | BQL* | BQL* | HPLC-RI | |
| Pyruvic (mg) | 5.24 | 20 | 4.52 | 7.48 | HPLC-RI | |
| Malic (mg) | 694.25 | 20 | 662.25 | 744.57 | HPLC-RI | |
| Shikimic (mg) | 0.84 | 23 | 0.39 | 1.49 | HPLC-RI | |
| Lactic (mg) | 23.37 | 19 | 15.2 | 30.65 | HPLC-RI | |
| Acetic (mg) | 91.86 | 22 | 57.61 | 123.69 | HPLC-RI | |
| Fumaric (mg) | 12.11 | 22 | 8.64 | 16.79 | HPLC-RI | |
| Succinic (mg) | 118.56 | 22 | 94.65 | 144.35 | HPLC-RI | |
| Citric (mg) | 6.27 | 20 | 5.88 | 6.62 | HPLC-RI | |
| Total organic acids | 954.21 mg | | | | | |

| ANTIOXIDANT | Average | Number of Observations | Minimum | Maximum | Method |
|----------------------|--------------|------------------------|---------|---------|--------|
| Antioxidant strength | 1618 µmol TE | 22 | 1403 | 1818 | ORAC |

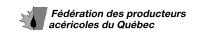
| POLYPHENOLS | Average | Number of Observations | Minimum | Maximum | Method |
|---------------------------------------|---------|------------------------|---------|---------|----------------------------------|
| 67 phenolic compounds counted to date | 0.3 mg | 22 | 0.3 mg | 0.33 mg | UFLC-MS/MS (isolated lignans) |

| PHYTOHORMONES | Average | Number of Observations | Minimum | Maximum | Method |
|--------------------------|-----------|------------------------|---------|---------|----------------|
| Abscisic acid ABA (µg) | 8.7 | 22 | 6.35 | 11.05 | UPLC/ESI-MS/MS |
| Phaseic acid PA (µg) | 128.75 | 22 | 109.69 | 155.06 | UPLC/ESI-MS/MS |
| Other phytohormones (µg) | 72.83 | 22 | 59.47 | 81.77 | UPLC/ESI-MS/MS |
| Total phytohormones | 210.28 µg | | | | |

| ENERGYVALUE | Average | Number of Observations | Minimum | Maximum | Method |
|-------------|-------------|------------------------|---------|---------|--------------|
| | 394.09 kcal | | | | Calculations |

 $^{^{\}star}$ BQL = Below Quantifiable Limit





Nutrition Facts Tables (generic)

CANADA

GENERAL INFORMATION

Nutrition Facts tables may change depending on use:

- If the product is for industrial use, packagers must use the Nutrition Facts table for 100 g.
- If the product is for consumers, packagers must use the Nutrition Facts table for 3 g.

These tables are presented for information purposes only.

Format must be confirmed for your packaging.

Consult a specialist to ensure compliance with Food and Drug Regulations (c.r.c., c. 870).

MAPLE SUGAR 100 g

| Nutrition Facts Valeur nutritive pour 100 g Per 100 g | |
|---|-------------|
| Calories 390 % valeur que | otidienne* |
| Lipides / Fat 0 g | 0 % |
| saturés / Saturated 0 g + trans / Trans 0 g | 0 % |
| Glucides / Carbohydrate 98 g | |
| Fibres / Fibre 0 g Sucres / Sugars 98 g | 0 % 98 % |
| Protéines / Protein 0 g | |
| Cholestérol / Cholesterol 0 mg | |
| Sodium 0 mg | 0 % |
| Potassium 350 mg | 7 % |
| Calcium 150 mg | 12 % |
| Fer / Iron 0 mg | 0 % |
| Manganèse / Manganese 4,05 mg | 176 % |
| * 5% ou moins c'est peu . 15% ou plus c'est be * 5% or less is a little . 15% or more is a lot | eaucoup |

| Nutrition Facts Valeur nutritive pour 100 g Per 100 g | |
|--|-----------------------------------|
| Calories 390 % vale | ur quotidienne* % Daily Value* |
| Lipides / Fat 0 g | 0 % |
| Glucides / Carbohydrate 98 Sucres / Sugars 98 g Protéines / Protein 0 g | g 98 % |
| Potassium 350 mg | 7 % |
| Calcium 150 mg | 12 % |
| Manganèse / Manganese 4,05 | mg 176 % |
| Source négligeable de lipides saturés, lip cholestérol, sodium, fibres et fer. | oides trans, |
| Not a significant source of saturated fat, cholesterol, sodium, fibre or iron. | trans fat, |
| * 5% ou moins c'est peu. 15% ou plus c * 5% or less is a little. 15% or more is a | |

MAPLE SUGAR 3 g

| Nutrition Facts Valeur nutritive pour 1 c. à thé (3 g) Per 1 tsp (3 g) | |
|--|------------|
| Calories 10 % valeur qu | otidienne* |
| Lipides / Fat 0 g | 0 % |
| saturés / Saturated 0 g + trans / Trans 0 g | 0 % |
| Glucides / Carbohydrate 3 g | |
| Fibres / Fibre 0 g Sucres / Sugars 3 g | 0 % 3 % |
| Protéines / Protein 0 g | |
| Cholestérol / Cholesterol 0 mg | |
| Sodium 0 mg | 0 % |
| Potassium 10 mg | 0 % |
| Calcium 0 mg | 0 % |
| Fer / Iron 0 mg | 0 % |
| Manganèse / Manganese 0,125 mg | 5 % |
| * 5% ou moins c'est peu . 15% ou plus c'est b * 5% or less is a little . 15% or more is a lot | eaucoup |

| Nutrition Facts Valeur nutritive pour 1 c. à thé (3 g) Per 1 tsp (3 g) | |
|--|----------------------------------|
| | r quotidienne* % Daily Value* |
| Lipides / Fat 0 g | 0 % |
| Glucides / Carbohydrate 3 g | |
| Sucres / Sugars 3 g | 3 % |
| Protéines / Protein 0 g | |
| Potassium 10 mg | 0 % |
| Manganèse / Manganese 0,125 | mg 5 % |
| Source négligeable de lipides saturés, lipic cholestérol, sodium, fibres, calcium et fer. | des trans, |
| Not a significant source of saturated fat, tracholesterol, sodium, fibre, calcium or iron. | ans fat, |
| * 5% ou moins c'est peu. 15% ou plus c'e * 5% or less is a little. 15% or more is a lo | |

Potential Claims in Canada

(In accordance with new Health Canada standards)

- Nutrient content claims are based on rounded values as per the new Food and Drug Regulations, Article B.01.401 (1.2) "The percentage of the daily value for a mineral nutrient shown in the nutrition facts table for a prepackaged product in accordance with subsection (I) shall be established on the basis of the amount, by weight, of the mineral nutrient per serving of stated size for the product, rounded off in the applicable manner set out in column 4 of the table to this section."
- · Claims are based on reference quantities. All reference quantities of sugar, including maple sugar, are 4 g.

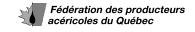
Legende: RA: Reference Amount MM: Metric Measurement HM: Home Measurement

| Product Category | Reference Amount (RA) | A. Criteria to determine the serving of stated size for multiple serving prepackaged products | B. Units for expressing the serving of stated size for multiple serving prepackaged products HM (MM) |
|---|--------------------------|---|--|
| Sugars, except those in another section of Column I | 4 g | MM:RA HM: number of teaspoons or packets with a weight in grams closest to RA | I tsp. or packet(s) (4 g) |

Source: Food and Drug Regulations

MINERALS

| | Content by Refe | | Claims for Minerals |
|-----------|-----------------|----|---------------------|
| Manganese | 0.125 mg | 5% | Source of manganese |



| Packaging | |
|------------------------|--|
| As per packager. | |
| | |
| | |
| Storage and Shelf Life | |

Copyright

The information contained in this sheet is provided for information purposes only and is the result of generic analyses of maple syrup conducted by external laboratories based on current knowledge. However, it is important to remember that the product may vary depending on numerous factors, conditions and harvests. This sheet is a practical guide and as such shall not, in any case, be considered a legal opinion on the matter, and the Federation of Quebec Maple Syrup Producers makes no commitment in this regard. You are strongly advised to consult a lawyer for a legal opinion regarding labelling rules. Although the information contained in this sheet was obtained from reliable sources and the Federation of Quebec Maple Syrup Producers has every reason to believe it accurate, its accuracy and completeness are not guaranteed and it is intentionally presented in a summarized, generalized manner. The Federation of Quebec Maple Syrup Producers makes no guarantee or representation either explicit or implicit regarding the accuracy, integrity or usefulness of this sheet, and disclaims all liability resulting from its use or the information contained herein. Anyone who chooses to use this sheet in any way whatsoever, to rely on it or to make a decision based on its contents assumes full responsibility for such choice. It is important to remember that claims and statements must be based on facts and must not be false, misleading, deceptive or likely to create an erroneous impression, as required in paragraph 5(I) of Canada's Food and Drugs Act and article 7 of the Consumer Packaging and Labelling Act.

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