

H & A (Canada) Inc.

1160 Tapscott Road, Toronto, Ontario, Canada M1X 1E9
Tel: (416) 412-9518 Fax: (416) 293-9066
sales@hacanada.com



Product Data

Organic Evaporated Cane Juice (ECJ)

Introduction

Emanating from out of a 600-acres certified organic cane sugar plantation which has an on-site manufacturing facility our ECJ is the final outcome of an extensive R&D effort which has led to the development of a totally new and revolutionary manufacturing process.

Product Description

Organic ECJ a natural, free flowing certified organic sweetener made by simply concentrating and dehydrating pure natural cane juice. This is an all natural source of sweetness that can be a part of any normal, healthy diet.

While ECJ can be used just like white refined sugar for sweetening foods and beverages, being totally amorphous and since it has no hard crystals, ECJ blends in with total ease, into dough and mixes which also makes ECJ an ideal sweetener for cooking, baking and confectionary usage. Being more wholesome than sugar, ECJ is also used as a sweetener of choice in a host of processed and natural foods.

Globally ECJ may also be recognized by a variety of other names, such as:

- Dried cane juice
- Unrefined sugar
- Milled Cane: Has small grained crystals with a golden color and subtle molasses flavor.
- Demerara: A coarse grained variety which consists of slightly sticky crystals with a noticeable molasses flavor.
- Muscovado: Very fine crystal sugar with a very distinctive molasses flavor.
- Raspadura/Rapadura/Panela: A product with roots in Latin American countries.

Organic Certification

Take5Organic ECJ is 100% certified Organic, conforming to EU 2092/91 and USDA NOP norms and standards.



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Manufacturing Process

Manually harvested Organic Sugar Cane is washed clean and crushed to obtain pure sugar cane juice which is filtered. The extract of an indigenous plant (Chuklai in the Hindi vernacular) is added to the juice. The Chuklai extract reacts with plant material in the sugar cane, such as chlorophyll and other plant matter to form a foamy compound on the surface. This froth is panned out and discarded, as waste, leaving behind an absolutely clear liquid.

This clarified juice, constantly stirred to prevent lump formation, goes through a series of open pans, heated from below with firewood. At every stage in this process, while losing moisture the juice becomes progressively more concentrated. The resultant viscous concentrate eventually becomes a fine granulated product with a moisture content of 5-6%. This powdered, slightly coagulated, sweetener is called Jaggery (shakkar in the Hindi vernacular).

In the final process, this Shakkar is dehydrated still further by passing this through a Fluidized Bed Drier. The result is a finely granulated product with a moisture content of less than 1%. To cater to specific requirements, the ECJ is passed over a series of screens, separating the bulk into evenly sized uniform granules.

From cane to final product nothing is added in and nothing removed, making Organic ECJ THE purest form of natural sweetener

Packaging

T50 ECJ is available in a range of packaging options to suit specific requirements. The product being naturally mildly hygroscopic, all packaging is designed to ensure that the ECJ does not get exposed to atmospheric moisture till the factory sealed pack is opened. The packaging options available are:

- 50Lb Heat sealed Multi Wall (aluminum/poly/paper) Kraft bags
- 10Lb Heat sealed laminated bag fitted with carrying handles
- 2Lb Pre-printed, heat sealed, laminated stand-up pouches
- 1Lb Pre-printed, heat sealed, laminated stand-up pouches

While the standard packing bears the T50 logo, the option of private label may be exercised for all packaging types, of course subject to minimum order quantities.

Granulation

While the standard product is an un-sieved 'bulk' ECJ which is made up of mixed grain sizes, subject to customer requirements, three specifically defined grain sizes can be made available:

- **Fine Grain** Passed through a standard 50 mesh
- **Medium Grain** Retained on a standard 50 mesh
- **Large Grain** Retained on a standard 30 mesh



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Nutrient Labeling Information (per 100 grams)	
Nutrient composition/100g	
Calories	380kCal
Carbohydrate	90g
Sodium	330mg
Potassium	750mg
Thiamin(Vitamin B1)	0.14mg
Riboflavin(Vitamin B2)	0.14mg
Niacin(Vitamin B3)	0.14mg
Pyridoxine(Vitamin B6)	0.40mg
Pantothenic acid	1.2mg
Calcium	110mg
Magnesium	84.7mg
Zinc	1.5mg
Copper	0.2mg
Iron	4.33mg
Phosphorus	32mg
Arsenic	BLQ (< 0.5ppm)
pH	5.67
Reactivity	Nil at normal temperature & use
Microbiological Parameters	
Specification	
Standard Plate Count	< 300CFU/g
Standard mold count	< 50 CFU/g
Thermophiles	<200CFU/g
Osmophilic yeast	<10CFU/g
Osmophilic mold	<10CFU/g
<i>E. coli</i>	Absent
<i>Salmonella</i>	Absent
<i>Shigella</i>	Absent
<i>S.aureus</i>	Absent
<i>Clostridium botulinum</i>	Absent



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Storage

Post opening of the factory sealed pack, ECJ should be stored in a tightly sealed container in a cool, dry place. Recommended storage conditions are 85-90°F at 60-65% R.H.

Shelf Life

12 -18 months when kept at 82-90° F at 60-65% RH.

Product Liability

All descriptions, suggestions and typical values supplied above are believed to be reliable; however, Take5Organic shall incur no liability by reason of inaccuracies or omissions in this information. Purchaser assumes sole responsibility for ensuring that product supplied is used in conformity with all applicable laws and regulations.

Health concerns

ECJ is not a commonly allergenic food and is not known to contain measurable amounts of goitrogens, oxalates, or purines and other allergens.

Major Allergen Declaration

Allergenic foods & derivatives	Constituent used in production	Cross-contact with material	Amount of allergenic material present
Peanuts and products thereof	No	No	N.A.
Crustaceans and products thereof	No	No	N.A.
Fish and products thereof	No	No	N.A.
Eggs and products thereof	No	No	N.A.
Nuts and products thereof ***	No	No	N.A.
Milk/Lactose and products thereof	No	No	N.A.
Soybeans and products thereof	No	No	N.A.
Cereals containing gluten	No	No	N.A.
Sulphur dioxide and sulphites	No	No	N.A.



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Celery and products thereof	No	No	N.A.
Sesame seeds and products thereof	No	No	N.A.
Mustard and products thereof	No	No	N.A.
Lupin and products thereof	No	No	N.A.
Molluscs and products thereof	No	No	N.A.

A few usage suggestions

- Use ECJ as a healthier alternative to sugar for sweetening coffee or tea.
- Muddle fresh mint leaves, limes and ECJ and add this mixture to sparkling water to make a non-alcoholic version of a Mojito, the popular Cuban drink.
- Use ECJ in place of refined sugar for baking.
- Sprinkle ECJ on top of a sliced grapefruit and broil.
- Enjoy cinnamon toast with a healthy twist. Drizzle flaxseed oil onto whole wheat toast and then sprinkle over with cinnamon and ECJ.

History

The history of ECJ runs almost parallel to the history of sugar since it is only recently that the refinement technology has developed methods of processing sugarcane to create white, refined sugar. For much of history, what we now call evaporated cane juice, was the sweetener of choice by all different cultures which used sugarcane.

The domestication of sugarcane is ancient, originating in New Guinea about 10,000 years ago. This plant spread westward throughout the globe, being widely grown in India. It was not until the Moors, who had learnt from the Indians the secrets of how to process sugarcane into sugar, conquered Spain in the 8th century that sugar began its expansion into Europe. The type of sugar produced varied in color, size, form and molasses content depending upon the exact processing techniques used and the preference of the region in which it was produced. Christopher Columbus is credited with introducing sugar into the New World, following which the European countries quickly introduced sugarcane cultivation into their colonies in South America and the Caribbean Islands.

In the last few centuries, sugar refineries were built leading to a move towards the manufacture of refined sugar, often referred to as "white gold". Thanks to an increased focus on whole foods and nutrition, it is only recently that there has been a renewed interest in the more natural and less processed form of sugar cane. It has this which has lead to the development of ECJ.



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Organic Evaporated Cane Juice & Rapadura		
Comparative Analysis Chart		
Parameters	T50 Organic ECJ	Rapanzul Rapadura
Physical Appearance	Bright Golden Color	Sandy in appearance
Granulation	Even sized grains	Mixed grains
Moisture Content	0.80%	1.60%
Total Ash	2.15%	1.93%
Acid Insoluble Ash	0.066%	0.033%
Conductivity Ash	0.000254%	0.000234%
Sulphated Ash	2.95%	2.44%
Total Sugars	80.41%	81.01%
Reducing Sugar	Nil	3.01%
10 Sulphur Dioxide (SO ₂)	Nil	34.62 ppm

- T50 Organic ECJ shows no presence or traces of SO₂ because no bleaching agents are employed during the manufacturing process of ECJ.
- T50 ECJ is free of any reducing sugars because no chemicals are used during the conversion process from cane to final product.
- The lower moisture content in T50 ECJ naturally translates into a longer shelf life.
- Other Parameters for the two products are almost comparable.





Material Safety Data Sheet

Section 1: Product and Company Identification	
Product name	Organic ECJ

Section 2: Information on ingredients	
Product name	Organic ECJ

Section 3: Product and Company Identification	
This substance is considered non-hazardous for transport	

Section 4: First-Aid Measures	
Not Applicable for this product	

Section 5: Fire fighting Measures	
Preventive Measures	Keep away from sources of fire such as fuel or inflammable articles.
Protective Measures	
Extinguishing media suitable	Water spray, carbon dioxides or suitable foam.
Fire-fighting equipment	Wear self-contained breathing apparatus and protective clothing to protect skin and eyes in an event of fire.

Section 6: Accidental Release Measures	
No specific procedures for personal precautions needed to be followed in case of an accidental release of the product.	
Clean-up methods	Sweep the spill area well and collect the released product in a dry, closed container for disposal. Wash the spill site after material pick up is complete.

Section 7: Handling and Storage	
Handling	Keep away from ignition sources and flame. Minimize accumulation on floors, ledges.
Storage	Store in a cool, dry, well-ventilated area at temperatures between 82° F - 90° F. Store in closed containers or bags away from any infestation or contamination.

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Section 8: Exposure Controls/Personal Protective equipments

No special PPE required. However, general hygienic conditions should be maintained near the product.

Section 9: Physical/Chemical/Microbiological Properties

Physical Properties	
Color	Golden Brown
Texture	Granular
Solubility in water	Cold water soluble
Specific gravity	0.794
Melting point	160-170°C
Volatility	Nil
Chemical Properties	
Moisture	< 0.8%
Total Ash	<2.15%
Acid Insoluble ash	<0.066%
Conductivity Ash	<0.0003%
Sulphated Ash	<2.95%
Sucrose	80.41%
Reducing Sugars	<0.1%
Sulphur Dioxide (ppm)	Nil
Arsenic	BLQ (< 0.5ppm)
pH	5.67
Reactivity	Nil at normal temperature & use
Shelf Life	8 months when kept at 82-90° F & 60-65% RH
Microbial Analysis	
Standard Plate Count	< 300CFU/g
Standard mold count	< 50 CFU/g
Thermophiles	<200CFU/g
Osmophilic yeast	<10CFU/g
Osmophilic mold	<10CFU/g
E. coli	Absent
Salmonella	Absent
Shigella	Absent
S.aureus	Absent
Clostridium botulinum	Absent



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Section 10: Stability and reactivity	
Stability	Product is stable at room temperature
Decomposition products	Carbon monoxide, carbon dioxide
No risk of hazardous polymerization	

Section 11: Toxicological Information
No Toxicity Data Available

Section 12: Ecological Information
Readily biodegradable

Section 13: Disposal considerations
Observe environmental, local, municipal, state and federal regulations for waste disposal

Section 14: Transport Information
This product is considered non-hazardous for transport by all possible means

Section 15: Regulatory information
Not applicable since this product is non hazardous

Section 16: Other information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as guide. We make no warranty or merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability.

Note: The information contained herein represents a suggested guide only. It is believed to be accurate and represents the most current information available to us. We make no guarantee of its content and assume no liability for its use. Users must make their own determinations of the suitability that this information provides them and their purpose. In no way is H&A (Canada) Inc. responsible for any claims, losses or damages of any client or third party as a direct or indirect result of the use of this information.

