



The Science of Sweetness

Official Website: www.Brix-Certified.com

BRIX-CERTIFIEDSM

°Bx GLYCEMIC IMPACT

**BRIX - GLYCEMIC IMPACTSM
RESEARCH & SCIENCE INSTITUTE**

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Our Products & Services

The Metabolic Identity of Sugars & Sweeteners

Advanced Blood Sugar Technology

30-Years of Board-Approved Clinical Trials

Helping clients create and/or re-formulate any edible product by providing independent investigations and verification in order to identify the Blood-Sugar & Metabolic Impact of a Nutraceutical, Pharmaceutical, Food or Beverage, Sugar, Sweetener & Bio-Sweetener for claims and FDA CFR21 label substantiation.

Neuronal & Metabolic - Sweet Perception

What does the °Bx GLYCEMIC IMPACT mark represent?

The Mark represents that a nutritional product has undergone the strict protocols as set forth for certification, including inspection of edibles/beverages to determine whether they conform to certification standards; Testing, analysis and evaluation of the goods and services available to the public, to determine conformity with certification standards. The mark represents that a nutritional product has been analyzed and tested per strict scientific protocols to determine the Caloric-Impact predicted metabolic response, and has passed all guidelines required to utilize the mark. The certification and mark help's provide valuable nutritional-impact identity of a product to consumers, manufacturers, formulators, and educators.

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WHAT DOES BRIX REPRESENT?

°Bx (Brix) represents the degree of sweetness and level of sugars. We have extended that research to include the Carbohydrate-Response, Glycemic Impact, and taste-receptor reactions to stimulation of T1R1, T1R2, T1R3 and TRPM5 sweet-receptors, as well as ultimate GLUT pathways that a sweet-substance triggers, in order to determine the overall metabolic response in humans.

What products can apply for the °Bx GLYCEMIC IMPACT mark?

Products eligible for testing, analysis, and evaluation include:

- Foods and beverages
- Dietary Supplements
- Nutritional and Nutraceutical products
- Functional edibles
- High and Low-Impact Sugars & Sweeteners
- Products containing sweet-plant-isolates
- Carbohydrates & caloric-impact formulas
- Glycoside sweeteners
- Products undergoing formulation (under development)

Said products will be evaluated in order to determine conformity with certification standards.

Clients may submit products that will be analyzed for quantification and qualification. Nutritional products, raw materials, and compounds that meet the criteria as set forth by BRIX-CERTIFIEDSM and BRIX – GLYCEMIC IMPACTSM will be allowed to use the Seal/Mark on labeling and attendant educational literature as related to the product submitted.

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Products bearing the certification mark that have been approved, following initial testing and analysis, will be required to undergo regular inspection that will meet compliance with the standards as set forth by the BRIX-CERTIFIEDSM and BRIX – GLYCEMIC IMPACTSM Scientific Advisor Board.

Any changes to a formula/product must undergo additional testing and analysis as verification of the original certification results in order to maintain use of the mark.

An APPLICATION FORM is available at our website:

www.Brix-Certified.com

CLINICAL EXPERTISE

20+ years of Board Approved Human In Vivo Clinical Trials in glycoside sweeteners and compounds, Low Glycemic sweeteners, High-Impact-sweeteners, Kid- Friendly sweeteners, & Diabetic research

- First scientists to conduct human clinical trials in developing glycoside sweetener protocols & formulas
- Metabolic identity of Stevia, Monk Fruit, and other glycoside sweeteners
- *Breakthrough Product of the Year* from Success magazine
- Over \$1 Billion dollars of technology & patents licensing with 30-years of Trusted Science and clinical investigations

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BRIX-CERTIFIEDSM and BRIX – GLYCEMIC IMPACTSM
CERTIFICATION MARKS

The °Bx Glycemic Impact Certification Marks are Service Marks duly authorized, filed and published at the United States Patent & Trademark office. Brix-Certification and Glycemic Impact is a certification standards service available to manufacturers, formulators, Nutraceutical products, sugars & sweeteners, carbohydrates, nutritional products, sweetening compounds (such as artificial and glycoside sweeteners), and other edibles, as described below.

- Assured Chain of Custody – for submitted products
 - Each client receives a Certified Identification number
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SWEETENERS & SUGARS ANALYSIS

- Low-Energy-non-nutritive sweeteners
 - Caloric Sweeteners & Sugars
 - Intense Sweetener Identity (ID)
 - Diabetic, Weight Management, GI Identity
 - Metabolic profiling of Glycoside sweeteners
 - Glycoside & Plant Isolates
 - THE SCIENCE of SWEETNESS
 - OBJECTIVE – SWEETENER SCIENCE
 - Validating & Certifying Low Glycemic Impact
 - Sugars & Sweeteners
-
- Brix analysis – The Science of Sweetness - Sweetener identification
-
- Glycemic control in developing sugars/sweeteners

SWEETENERS & SUGARS ANALYSIS

- **“Helps Support Glucose Management”
claim substantiation**

- **Reformulating sugars/sweeteners
that negatively impact blood sugar levels**

- **Avoiding Fat-Storing LPL sugars/sweeteners**
- **Bi-Sweetener design & analysis**
- **Downregulating insulin-driven Glut Pathways**
- **Downregulating adipose-tissue driven sweeteners**
- **Stevia – Steviol Glycosides Glut Pathway**

BIO-SWEET SOLUTIONS **SWEET-TECHNOLOGY**

Advanced technology providing ultimate solutions, including labeling claims and independent Certifications, for formulators, manufacturers, products in development and/or products already on the market that desire intense analysis of the metabolic effects of a product, with resulting verification and re-formulation if required.

SUPPLEMENT FACTS - NUTRITION – LABELS

Substantiation of “Sugars” and NEW FDA CFR-21 Guidelines for “Added Sugars”

Label matches Ingredient Analysis

Substantiation of Accurate Label data

Nutraceutical label ID of Sugars/Added Sugars

NOTE: In terms of sweeteners, the United States Food and Drug Administration (FDA) has allowed the use of Stevia extracts containing not less than 95% total steviol glycosides. Per claims, since Stevia extracts do not convey antioxidant activity, said claims are not allowed.

LEGAL GLYCEMIC CLAIMS - FDA

U.S. REGULATORY GUIDELINES REGARDING GLYCEMIC CLAIMS

Regulatory Compliance & Certification

www.BRIX-CERTIFIED.com

FDA REGULATORY COMPLIANCE

“Glycemic Statement or Claims regarding the Glycemic Status of a product (such as a Sports Drink) is only allowed on supplements, nutrients, or products if the Glycemic Index is based on a Clinical Trial of that specific product” FDA Regulatory Compliance Further, the content and formula of the carbohydrates referenced is not required to be revealed by the manufacturer, and can remain proprietary to the manufacturer, as the FDA has determined that “Nutrient Content is not defined for said carbohydrates, although the Glycemic Clinical Trials are still mandatory for any claim or statement on said label. Labels must also still contain mandatory content. FDA Regulatory Compliance (2019)

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ABOUT THE SEAL

BRIX-CERTIFIED - °Bx GLYCEMIC IMPACT

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SEAL/MARK SERVICES DEFINED

Inspecting edibles/beverages to determine whether they conform to SR-2020 (Scientific Research 2020) and glycemic impact quality certification standards; Testing, analysis and evaluation of the goods and services of others to determine conformity with certification standards; Testing, analysis and evaluation of the goods of others to determine conformity with certification standards; Testing, analysis, and evaluation of goods or services of others to the order and specification of SR-2020 and glycemic impact; Testing, analysis, and evaluation of Foods and beverages, Nutraceutical products, supplements, educational data (brochures, etc.), functional foods and beverages, sugars, sweeteners, carbohydrates, juice and juice extracts, glycoside sweeteners to determine conformity with certification standards

BRIX-CERTIFIEDSM and BRIX – GLYCEMIC IMPACTSM is a certification standards service available to manufacturers, formulators, Nutraceutical products, sugars & sweeteners, carbohydrates, nutrition products, sweetening compounds (such as artificial and glycoside sweeteners), compounds, and other edibles, as described above. Clients may submit products that will be analyzed for quantification and qualification. Products, raw materials, and compounds that meet the criteria as set forth by BRIX-CERTIFIEDSM and BRIX – GLYCEMIC IMPACTSM will be allowed to use the Seal/Mark on labeling and attendant educational literature as related to the product submitted.

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LABELING COMPLIANCE

Labeling compliance is a requirement of the Food & Drug Administration, and the newer guidelines can vary from the original guidelines. It is imperative that any company in the food or nutrition business work closely with their Regulatory Attorney to comply with the new guidelines.

The newest/current regulatory status of the FDA & FTC on labeling guidelines is of particular importance, especially as to the new “Added Sugars” labeling (where applicable per FDA guidelines: Nutrition Facts vs Supplement Facts).

We applaud the FDA for adding the “Added Sugars” as labeling compliance, as there are multiple forms of sugars and sweet-compounds that affect the human body, and their biochemical effects vary greatly, especially when combined.

The BRIX-CERTIFIEDSM and BRIX – GLYCEMIC IMPACTSM marks do not override or affect the decision of the client’s Regulatory Attorney in terms of labeling, claims, etc. The final decision on whether to utilize the Seal/Mark should be up to the client’s Regulatory Attorney.

BRIX & GLYCEMIC IMPACT

The term Brix or °Bx is used to describe both degree of sweetness and amount of sugar (sweetening impact). Technically, Brix (°Bx) is a measure of the amount of dissolved solids in a liquid via its specific gravity, and is used to measure dissolved sugar. One degree Brix is 1 gram of sucrose in 100 grams of solution. Diabetics use BRIX to detect sugars, as the level of sugar in the urine can be measured in Brix, which is percentage of total sugars in a solution. If urine contains 2% total sugar or total carbohydrate, the Brix reading is 2.0. This information helps monitor blood sugar levels.

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The degree of BRIX (°Bx as DEGREES BRIX) level varies in carbohydrates, sugars, sweeteners and other elements, foods and beverages (and edibles/consumables), juices, and anything that contains sugars, carbohydrates, juice or juice extracts, fruit and fruit extracts, corn syrups, maltodextrins, glycosyl polymers, vegetables, and plant extracts or other oral ingested substances that have a Brix value.

Depending on the degree of processing, fruit juice sweeteners contribute primarily carbohydrates in the form of sugars. Structurally, they include monosaccharides and disaccharides.

The United States FDA and USDA have strict guidelines on Brix. As an example: “If a batch of apple juice, for example, contains less than its USDA minimum Brix of 11.5°, a manufacturer can add apple juice concentrate to standardize sugar content without having to count the concentrate as added sugars. The USDA requires manufacturers to maintain written records of the amount of sugars added to a food or a beverage during processing and of the source(s) of Brix values used for any calculations. Anything orally ingested in humans that carries a glycemic value and a Brix value, helps provide day-to-day management of blood glucose.

For decades, the Glycemic Index has been acknowledged as the Gold Standard for determining GI, Glycemic Load, and Insulin Index (particularly by Harvard University).

The Glycemic Index and Glycemic Load are related to °Bx

The GI and GL are numerically defined, and °Bx is typically numerically defined, whereas the Glycemic Impact is not numerically defined in all cases. Clinical trial results are used in determining Glycemic Impact, whereas °Bx is a mathematical equation.

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APPLICATION PROTOCOLS

In the case of use of the specific BRIX-CERTIFIEDSM and BRIX – GLYCEMIC IMPACTSM Seals/Marks, clients may elect to submit a finished product or a compound, a sweetener, or an edible agent.

Application forms are available at our official website. Following analysis, the client will be advised of the results, which will dictate a written approval to utilize the Seal/Mark on said product(s). Any questions from the client may be submitted at the website. Following submission of the official application, the client will be contacted, and will be advised as to the appropriate steps to approval.

Client use of the Seal/Mark depends on compliance with the protocols as set forth by the scientific board. The Seal/Mark does not convey any specific diabetic approval (only IMPACT), as this requires Human In Vivo Clinical Trials for substantiation. Nor does the Seal/Mark convey or implicate any specific health benefits or claims to the client or to the public, other than as specified.

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BRIX-CERTIFIEDSM and BRIX – GLYCEMIC IMPACTSM

RESEARCH & SCIENCE INSTITUTE

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Research & Science Division: science@Brix-Certified.com

DONNA WATERS: EXECUTIVE INTAKE ADMINISTRATOR

Donna will guide clients through the process of application and goals. The Science Advisory Board is available for conference calls regarding specific claims and scientific questions.

Donna may be contacted at: info@Brix-Certified.com

CLINICAL TRIALS: Board Approved Human In Vivo Clinical Trials are supplied in conjunction with the Glycemic Research Institute® (Glycemic.com)

END DOCUMENT

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