

# Vancitrix Nutritional Analysis

Test	Result	Completed
QD252 - Protein - Combustion AOAC 990.03; AOAC 992.15	0.23%	12/20/16
QD250-Ash AOAC 942.05	2.92%	12/20/16
QD226 - Calories, Calculated CFR - Atwater calculation	371 kcal/ 100 g	12/20/16
QD038 - Carbohydrates, Calculated CFR 21 - Cale.	92.07%	12/20/16
QD148 - Moisture by Vacuum Oven AOAC 925.09 Moisture and Volatiles	4.60%	12/20/16
QD251 - Calcium by ICP AOAC 965.17 / 985.01 mod.	3.1 mg/ 100 g	12/20/16
QD107 - Iron by ICP AOAC 965.17 / 985.01 mod	0.60 mg/ 100 g	12/20/16
QD179 - Potassium by ICP AOAC 965.17 / 985.01 mod	14.30 mg/ 100 g	12/20/16
QD198 - Sodium by ICP AOAC 965.17 / 985.01 mod	1,120 mg/ 100 g	12/23/16
QD230 - Fiber, Total Dietary AOAC 991.43	<0.20 g l 100 g	12/20/16
QQ129 - Sugar Profile (AOAC, Most matrices) AOAC 982.14, mod	Fructose <0.15 g / 100 g	12/20/16
	Glucose <0.15 g / 100 g	
	Sucrose <0.15 g / 100 g	
	Maltose <0.15 g / 100 g	
	Lactose <0.15 g / 100 g	
Total sugars 31.0 mg/ g		
QQ160 - Vitamin C - Ascorbic acid AOAC 967.22 mod.	31.0 mg/g	12/16/16
QDOEK - Vitamin D (LC - MS/MS) Huang et al., Rapid Commun. Mass Spectrum 2014, 28	Total Vitamin D2 & D3 <0.100 ug l 100 g	12/20/16
	Vitamin D2 <0.100 ug / 100 g	
	Vitamin D3 <0.100 ug / 100 g	
QD041 - Cholesterol in Food AOAC 994.10 mod.	<0.80 mg l 100 g	12/19/16
QD036 - Calories from Total Fat, Cale. CFR 21- Cale.	2 kcal/ 100 g	12/16/16
QD379 - Total Fat from Trans Profile AOAC 996.06 mod.	0.18 g / 100 g	12/16/16
QD380 - Saturated Fat from Trans Profile AOAC 996.06 mod.	0.13 g / 100 g	12/16/16
QD381- Mono & Poly Unsaturated Fatty Acids from Trans FAP AOAC 996.06 mod.	Cis, cis - Polyunsaturated FA <0.05 g l 100 g	12/16/16
	Cis - Monounsaturated FA <0.05 g l 100 g	
QQ051-Total Trans Fatty Acids AOAC 996.06 mod.	0.01 g l 100 g	12/16/16

CERTIFICATE OF ANALYSIS - AR-16-QD-1900285-02



**CHEMIE**  
RESEARCH & MANUFACTURING CO. INC.

Chemie Research and Manufacturing was established over 35 years ago as the research and international sales company for our grapefruit extract. Our founder, Dr. Jakob Harich, developed and patented the grapefruit seed and pulp extraction process in the 1970's. Additional proprietary enhancements for patent extension were made in 1995 and 1997. This is the only original extraction process.

Dr. Harich was a pioneer in the search for natural products. In the early 1960's, while living in Florida, a closer look at the native plants and fruit naturally progressed to researching citrus and its by-products. He began to focus on grapefruit and the potential benefits of the many phytochemicals present in the fruit.

Our formulation and manufacturing process was the result of years of experimentation with grapefruit and its major bioactive components.

Our team is focused on continued research and development for natural products and applications that meet the needs of our customers. We are committed to product quality and customer service .

## Chemie Research & Manufacturing Co. Inc

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# Vancitrix

## Organic Grapefruit Extract - Preservative Solutions, Naturally.

**vancitrix**  
ORGANIC, WATER SOLUBLE GRAPEFRUIT EXTRACT



Effective broad spectrum bactericide derived from organically grown grapefruit. The concentrated grapefruit extract is prepared from pith, seeds and pulp, and additional organic ingredients, using a proprietary manufacturing process to preserve the active properties. As a dietary supplement, the active bioflavonoids and polyphenolic components in Vancitrix may support protection against free radicals and oxidative stress.

**Properties**

Water soluble and suitable in a variety of mediums. Heavy viscous with dark orange color. Thermal stability.

**INCI**

Citrus X Paradisi Extract, Organic Glycerine, Nutritional Acids (Ascorbic, Citric, Lactic)  
Food-grade, Non-GMO and GRAS ingredients

**CAS RN** 1586019-34-2

**Applications**

At concentrations of 2-3%, the active antioxidants in Vancitrix aid in the preservation of foods and beverages, slowing product spoilage and maintaining food quality. The preservative can help to control contamination and spoilage and extend product life.

Applications also include use as a surface disinfectant and sanitation of equipment and instrumentation used in industries restrictive of and as an alternative to harsh chemicals. Such industries may be organic dairy farms and poultry, organic food and vegetable processing/handling facilities, as well as direct use for fruit or vegetable washes.

Current primary use is in the dietary supplement and nutraceutical industry.

**Manufacture**

As an FDA registered facility, production is controlled in our own Florida manufacturing plant. Each process stage meets quality control specifications and documented protocols. Ingredient integrity is confirmed via vendor Organic and GMP certificates and our own Organic Certification process conducted by QCS. Every batch of Vancitrix is quality control tested and Certificates of Analysis issued.

Additional certificates and annual inspections include Kosher and Halal.

**Verification**

Vancitrix has been successfully tested by an independent laboratory for antimicrobial effectiveness using the USP 51 (Antimicrobial Effectiveness Testing) and USP 1227 (Microbial Recovery Validation) protocols. In-house micro testing is performed periodically on random production batches.

Results of independent micro laboratory efficacy studies: (additional product category 2 studies in process)



**Third Party Test:**

Vancitrix - Grapefruit Extract (Made from Organic GG), 3% Concentration

Product Category: Category 3

Organism		Storage Time (days) and Microbial Challenge Results		
		0	14	
Escherichia coli (ATCC 8739)	CFU/g	38,000,000	<10	Pass
	log10 CFU/g	7.58	<1.00	
Pseudomonas aeruginosa (ATCC 9027)	CFU/g	25,000,000	<10	Pass
	log10 CFU/g	7.40	<1.00	
Staphylococcus aureus (ATCC 6538)	CFU/g	28,000,000	<10	Pass
	log10 CFU/g	7.45	<1.00	
Candida albicans (ATCC 10231)	CFU/g	2,000,000	870,000	Pass
	log10 CFU/g	6.30	5.94	
Aspergillus brasiliensis (ATCC 16404)	CFU/g	19,000,000	22,000	Pass
	log10 CFU/g	7.28	4.34	

Results of in-house efficacy and inhibition zones:

**Mean averages of measurements of zones of inhibition, mm.**

Concentration	E.coli (gram -)	Pseudomonas aeruginosa (gram -)	Staphylococcus aureus (gram +)
1%	26.33	27.00	25.5
3%	28.33	30.33	25.67