



גדות תעשיות ביוכימיה בע"מ
Gadot Biochemical Industries Ltd.

Tri Zinc Citrate Dihydrate

Description:

Tri Zinc Citrate Dihydrate is an odorless, white, crystalline powder.

General Characteristics:

Formula:	$Zn_3(C_6H_5O_7)_2 \cdot 2H_2O$
Molecular weight:	610.14
Appearance:	White crystalline powder
Odor:	Practically odorless
Solubility	Slightly soluble in water
CAS Number:	5990-32-9
EINECS No.:	208-901-2

Standard Specifications:

Identification	Passes test
Assay as Zn	31-33%
Loss on drying 105C	1% max.
Arsenic (as As)	0.5 ppm max.
Cadmium (as Cd)	0.5 ppm max.
Sulfate	200 ppm max.
Chloride	200 ppm max.
Mercury	0.1 ppm max.
Iron	10 ppm max.
Copper	5 ppm max.
Lead	5 ppm max.
Cadmium	0.5 ppm max.
pH 5%	5-7



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Organic Volatile Impurities

Gadot's Tri Zinc Citrate Dihydrate contains no tridodecylamin nor any polynuclear hydrocarbons or volatile organic impurities. These compounds are not used in the manufacturing process of the above product and if tested they will comply with the required specified limits of U.S.P. and E.P.

<u>Impurities</u>	<u>Limit</u>
Benzene	2 PPM
Carbon tetrachloride	4 PPM
1,2 - Dichloroethane	5 PPM
1,1 - Dichloroethene	8 PPM
Chloroform	60 PPM
1,4 - Dioxane	380 PPM
Ethylen Oxide	10 PPM
Methylen Chloride	600 PPM
Tri Chloroethylene	80 PPM

Nutritional Values:

<u>Nutrient</u>	<u>Nutrient quantity</u>
Protein	- None
Carbohydrates	- None
Fat	- None
Zinc	- 31- 33%
Vitamin A	- None
Vitamin C	- None
Vitamin B ₆ , B ₁₂	- None
Copper	- 5 ppm max.
Iron	- 10 ppm max.
Artificial Colors	- None
Caloric value	- 153 Kcal/100gr.

Allergens:

Gadot's Tri Zinc Citrate doesn't contain any food allergens according to annex 3a of EU directive 2003/89.

Standard Granulation:

Regular:	d(90) less than 150 micron
M3:	d(99) less than 53 micron d(50) = 2-4 micron

Particle size distribution is analyzed by Laser diffraction after ultrasonic treatment of sample.



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Other requirements:

Foreign Bodies: In compliance with the FDA/ORL compliance policy guide section 555.425.

BSE/TSE

No raw materials from bovine origin are used nor are any bovine constituents present in the product.

Hormones and Antibiotics

No antibiotics or hormones are present in the product.

Mycotoxines:

Total Aflatoxines	- less than 4	ppb
Aflatoxins B1	- less than 2	ppb
Aflatoxins M1	- less than 0.05	ppb

Pesticides and Insecticides:

Complies with United States and European food health regulations.

GMO - Status:

The product is a non GMO product and is free from any recombinant DNA technology involvement.

Irradiation / Radioactivity:

Gadot's Tri Zinc Citrate Dihydrate was never subjected to any kind of ionized irradiation and contains no radioactivity not even in minor amounts.

Microbiological Specification:

Total viable count	-	500 CFU/gr. max.
Yeast & Molds	-	20 CFU/gr. max.
E. Coli	-	Absent in 10 gr.
Staphylococcus Aureus	-	Absent in 10 gr.
Pseudomonas Aeruginosa	-	Absent in 10 gr.
Salmonella	-	Absent in 25 gr.
Coliforms	-	10 CFU/gr. max.
Listeria Monocytogenes	-	Absent in 25 gr.



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Main Uses:

- In toothpaste and mouthwash.
- Fortification of food stuff with Zinc.
- Not for use in the preparation of injectable solutions.

Packaging:

25 kg., 50 lb. or 10 kg. polyethylene-lined multi-wall paper bags, palletized and stretch-wrapped. Big bags and other packaging available on request.
All packaging materials used are suitable for food applications according to FDA and EU regulations.

Expiry Date:

Tri Zinc Citrate Dihydrate Anhydrous has a shelf life of two years from production date. The production date is printed on the bags.

Kosher:

Tri Zinc Citrate Dihydrate produced by Gadot is strictly Kosher. Kosher certificates are available upon request.

Vegetarians / Vegans:

Tri Zinc Citrate Dihydrate produced by Gadot is suitable for consumption by vegetarians and vegans.

ISO 9000:

Gadot is ISO-9001 : 2008 certified.

HACCP:

Gadot Biochemical Industries Ltd. Food Safety Management System - HACCP comply with:

1. CODEX ALIMENTARIUS – Annex to CRC/RCP – 1969 Rev.3 (1997).
2. Health Ministry Guide for HACCP, March 2002 Edition.



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GMP:

Gadot Biochemical Industries is GMP certified.

Gadot manufacture its Tri Zinc Citrate Dihydrate under strict supervision and full compliance with all GMP rules, and therefore permitted to label it's product with official GMP symbol as laid down in the public health regulations.

Storage Recommendations:

Store in a cool and dry place.

Updated: December 3, 2015