



Texan Minerals and Chemicals

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CERTIFICATE OF ANALYSIS FOR CITRIC ACID ANHYDROUS

Analysis Date: Oct 19, 2021 TMC Lot No. : TS2083
 QTY : 20 T Commodity Mesh: Fine
 MFG Date : July 27, 2021 EXP Date : July 27, 2024
 Mfg. Batch No: 642208-3

No.	Item	Specification	Results
1.	Appearance	White or almost white, crystalline powder, colorless crystals or granules	Conforms
2.	Solubility	Very soluble in water, freely soluble- in ethanol (96%)	Conforms
3.	Melting Point	About 153 °C	Conforms
4.	Identification	Pass Test (Identification B, E)	Pass Test
5.	Test for citrate	Pass Test	Pass Test
6.	Appearance of solution/ Clarity & Color of Solution	Pass Test	Pass Test
7.	Assay	99.5 - 100.5 %	99.93%
8.	Water (Karl Fischer Method)	Max. 0.5%	0.14%
9.	Sulfate	Max 150 ppm	< 100 ppm
10.	Readily Carburizable Substance	Pass Test	Pass Test
11.	Residue on Ignition (Sulfated ash)	Max. 0.05 %	0.020%
12.	Oxalic Acid	Max. 360 ppm	< 100 ppm
13.	Heavy Metals (As Pb)	Max. 5 ppm	< 5 ppm
14.	Lead	Max. 0.5 ppm	< 0.5 ppm
15.	Mercury	Max. 1 ppm	< 1 ppm
16.	Arsenic	Max. 1 ppm	≤ 0.3 ppm
17.	Iron	Max. 5 ppm	< 3 ppm
18.	Calcium	Max. 200 ppm	< 20 ppm
19.	Chloride	Max. 50 ppm	< 15 ppm
20.	Barium	Meets TISI Requirements	Pass Test
21.	Aluminum	Max. 0.2 ppm	< 0.2 ppm
22.	Bacteria Endotoxins	Less than 0.5 TU/mg	< 0.5IU/mg
23.	Tridodecylamine	Max. 0.1 ppm	< 0.1 ppm
24.	Oxalate	Max. 100 ppm	< 100 ppm
25.	Foreign Matter	Not Detected	Not Detected

The product is in conformity with BP2019, USP41, EP9.0, FCC10, JECFA, E330, TISI (464-2544)

Certified only the sample which are inspected analyzed and tested only