



Certificate of Analysis

Photo		Product: Tri-Sodium Citrate Dihydrate
		Packing: 25kgs Poly-woven Bags P.E. Inner
		Qty: 25 MT
		Analysis Date: Oct 28, 2009
		Mfg Date: Oct, 2009
		Expiry Date: Oct, 2011


TEST DATA

NO.	ITEM	UNIT	BP98	E331	USP24	EP 5.0	FCC IV	TEST RESULT
1	CHARACTERS		COLORLESS OR WHITE CRYSTAL	COLORLESS OR WHITE CRYSTAL	COLORLESS OR WHITE CRYSTAL	COLORLESS OR WHITE CRYSTAL	COLORLESS OR WHITE CRYSTAL	COLORLESS OR WHITE CRYSTAL
2	IDENTIFICATION		PASS THE TEST	PASS THE TEST	PASS THE TEST	PASS THE TEST	PASS THE TEST	PASS THE TEST
3	ACIDITY OR BASICITY		PASS THE TEST	PASS THE TEST	PASS THE TEST	PASS THE TEST	PASS THE TEST	PASS THE TEST
4	CLARITY & COLOUR OF SOLUTION		PASS THE TEST	PASS THE TEST	PASS THE TEST	PASS THE TEST	PASS THE TEST	PASS THE TEST
5	CONTENT	%	99.0-101.0		99.0-100.5	99.0-101.0	99.0-100.5	99.86
6	MOISTURE	%	11.0-13.0	≤13.0	10.0-13.0	11.0-13.0		11.78
7	SULPHATE	ppm	≤150	≤150		≤150	PASS THE TEST	<150
8	OXALATE	ppm	≤300	≤100		≤300	PASS THE TEST	<80
10	HEAVY METALS	ppm	≤10	≤5	≤10	≤10	≤5	<3
11	IRON	ppm						<2
12	CHLORIDE	ppm	≤50	≤50		≤50		<15
13	READILY CARBURETED SUBSTANCE		STANDARD COLOUR	STANDARD COLOUR		STANDARD COLOUR	STANDARD COLOUR	LESS THAN STANDARD COLOUR
14	ARSENIC	ppm					≤3	<0.5
15	MERCURY	ppm		≤1				<0.1
16	LEAD	ppm		≤1			≤0.5	<0.5
17	TARTRATE	ppm			PASS THE TEST		PASS THE TEST	PASS THE TEST
18	PYROGEN	IU/mg	PASS THE TEST			PASS THE TEST		PASS THE TEST

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Photo			Product: Citric Acid Anhydrous, Mesh 30-100			
			Packing: 25kgs Poly-woven Bags P.E. Inner			
			Q'ty: 25 MT			
			Analysis Date: Oct 26th, 2009			
			Mfg Date: Oct, 2009			
			Expiry Date: Oct, 2011			
NO.	ITEM	BP98	E330	USP24	FCC	TEST RESULT
1	CHARACTERISTICS	COLORLESS OR WHITE CRYSTAL	COLORLESS OR WHITE CRYSTAL	COLORLESS OR WHITE CRYSTAL	COLORLESS OR WHITE CRYSTAL	COLORLESS OR WHITE CRYSTAL
2	IDENTIFICATION	CONFORM	CONFORM	CONFORM	CONFORM	CONFORM
3	CLARITY & COLOUR OF SOLUTION	20% WATER SOLUTION CLARITY	20% WATER SOLUTION CLARITY	20% WATER SOLUTION CLARITY	20% WATER SOLUTION CLARITY	20% WATER SOLUTION CLARITY
4	ASSAY	99.5-101.0%	99.5-101.0%	99.5-100.5%	99.5-100.5%	99.91%
5	MOISTURE	≤0.5%	≤0.5%	≤0.5%		0.08%
6	SULPHATED ASH	≤0.1%	≤0.05%	≤0.05%	≤0.05%	0.02%
7	SULPHATE	≤150ppm		CONFORM	CONFORM	<30ppm
8	OXALATE	≤350ppm	≤100ppm	CONFORM	CONFORM	<20ppm
9	CALCIUM	≤200ppm			CONFORM	<10ppm
10	HEAVY METALS	≤10ppm	≤5ppm	≤5ppm	≤5ppm	<1ppm
11	IRON	≤50ppm				<1ppm
12	CHLORIDE	≤50ppm				<5ppm
13	READILY CARBURETED SUBSTANCE	STANDARD COLOUR	STANDARD COLOUR	STANDARD COLOUR	STANDARD COLOUR	LESS THAN STANDARD COLOUR
14	BARIUM	CONFORM				CONFORM
15	BACTERIAL ENDOTOXIN	≤0.5IU/mg				<0.5IU/mg
16	ALUMINIUM	≤0.2ppm				<0.2ppm
17	ARSENIC		≤1ppm	≤3ppm	≤3ppm	<0.1ppm
18	MERCURY		≤1ppm			<0.1ppm
19	LEAD		≤1ppm		≤0.5ppm	<0.5ppm
20	ORGANIC VOLATILE IMPURITY				CONFORM	CONFORM
21	TRIDODECYLAMINE				≤0.1ppm	<0.1ppm
22	U.V. RADIATION ABSORPTION				CONFORM	CONFORM

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Photo		Product: Citric Acid Monohydrate, Food Grade
		Packing: 25kgs Poly-woven Bags P.E. Inner
		Lot #: M906810, Qty: 25 MT
		Analysis Date: July 20th, 2009
		Mfg Date: June 2009
		Expiry Date: June 2011

TEST DATA

No.	Item	Standard (BP98)	Test Result
1	Appearance	Colourless or white crystal	Conform
2	Identification and solubility	Pass the test	Conform
3	Clarity and colorless of solution	20% water solution clarity	Clarity
4	Assay	99.5% to 101.0%	99.88%
5	Humidity	≤0.5%	0.13%
6	Sulphated ash	≤0.1%	0.02%
7	Loss on drying	7.8-8.8%	8.74%
8	Sulphate	≤150ppm	<30ppm
9	Oxalates	≤350ppm	<20ppm
10	Calcium	≤200ppm	<10ppm
11	Heavy metals	≤10ppm	<1ppm
12	Iron	≤50ppm	<5ppm
13	Chloride	≤50ppm	<5ppm
14	Readily carbureted substance	Standard color	Standard
15	Barium	Pass the test	Conform
16	Bacterial endotoxin	≤0.5IU/G	<0.5IU/G
17	Aluminium	≤0.2ppm	<0.2ppm
18	Arsenic	≤4ppm	<0.1ppm
19	Mercury	≤1ppm	<0.1ppm
20	Lead	≤1ppm	<0.5ppm
21	Organic volatile impurity	Pass the test	Conform
22	Tridodecylamine	≤0.1ppm	Conform
23	U.V. Radiation absorption value	Pass the test	Conform