



Report Number
14-182-2056

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REPORT OF ANALYSIS

For: (7294) CALCIUM PRODUCTS INC
(515)598-2762

Mail to:

**CALCIUM PRODUCTS INC
2520 N LOOP DR STE 7100
AMES IA 50010-8279**

PO/Proj. #: P22832
LIME ANALYSIS

Date Reported: 07/01/14
Date Received: 06/18/14
Date Sampled: 06/16/14
Time Sampled: Not Supplied

Lab number: 2282793

Analysis	Level Found	Units	Detection Limit	Method	Analyst-Date	Verified-Date
<u>Sample ID: AGL02214</u>						
Moisture	7.67	%	0.10	AOAC 17E 950.01 100C	mgn-06/23	mjs-06/23
Calcium	19.30	%	0.01	ICAP	krr-06/19	mjs-06/23
Magnesium	11.30	%	0.01	ICAP	krr-06/19	mjs-06/23
Total Neutralizing Val(CaCO3 eq)	90.06	%	0.10	AOAC 955.01	mgn-06/19	mjs-06/23
ECCE	71.15	%		CALCULATED	jjb-06/23	mjs-06/23
Sieve analysis (% passing 4 mesh)	100	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 8 mesh)	98	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 60 mesh)	67	%		WET SIEVE	jjb-06/23	mjs-06/23
Mercury (total)	n.d.	mg/kg	0.05	EPA 7471	ccm-06/23	kkh-06/24
Zinc (total)	n.d.	mg/kg	1.0	EPA 6010	akj-06/23	kkh-06/24
Selenium (total)	n.d.	mg/kg	10.0	EPA 6010	trh-06/23	kkh-06/24
Lead (total)	n.d.	mg/kg	5.0	EPA 6010	trh-06/23	kkh-06/24
Nickel (total)	1.5	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/24
Molybdenum (total)	n.d.	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/24
Cobalt (total)	n.d.	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/24
Cadmium (total)	n.d.	mg/kg	0.50	EPA 6010	trh-06/23	kkh-06/24
Arsenic (total)	n.d.	mg/kg	10.0	EPA 6010	trh-06/23	kkh-06/24
Sieve Analysis (% passing 100 mesh)	59	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 20 mesh)	81	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 200 mesh)	42	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 30 mesh)	75	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 80 mesh)	62	%		RO-TAP SHAKER (5 MIN)	jjb-06/23	mjs-06/23

The result(s) issued on this report only reflect the analysis of the sample(s) submitted. For applicable test parameters, Midwest Laboratories is in compliance with NELAC requirements. Our reports and letters are for the exclusive and confidential use of our clients and may not be reproduced in whole or in part, nor may any reference be made to the work, the results, or the company in any advertising, news release, or other public announcements without obtaining our prior written authorization.



REPORT OF ANALYSIS

Account: 7294 CALCIUM PRODUCTS INC

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Analysis	Level Found	Units	Detection Limit	Method	Analyst-Date	Verified-Date
<u>Sample ID: AGL02314</u>						
Moisture	3.63	%	0.10	AOAC 17E 950.01 100C	mgn-06/23	mjs-06/23
Calcium	19.20	%	0.01	ICAP	krr-06/19	mjs-06/23
Magnesium	11.00	%	0.01	ICAP	krr-06/19	mjs-06/23
Total Neutralizing Val(CaCO3 eq)	87.10	%	0.10	AOAC 955.01	mgn-06/19	mjs-06/23
ECCE	85.62	%		CALCULATED	jjb-06/23	mjs-06/23
Sieve analysis (% passing 4 mesh)	100	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 8 mesh)	100	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 60 mesh)	98	%		WET SIEVE	jjb-06/23	mjs-06/23
Mercury (total)	n.d.	mg/kg	0.05	EPA 7471	ccm-06/23	kkh-06/23
Zinc (total)	n.d.	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/23
Selenium (total)	n.d.	mg/kg	10.0	EPA 6010	trh-06/23	kkh-06/23
Lead (total)	n.d.	mg/kg	5.0	EPA 6010	trh-06/23	kkh-06/23
Nickel (total)	n.d.	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/23
Molybdenum (total)	n.d.	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/23
Cobalt (total)	n.d.	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/23
Cadmium (total)	n.d.	mg/kg	0.50	EPA 6010	trh-06/23	kkh-06/23
Arsenic (total)	n.d.	mg/kg	10.0	EPA 6010	trh-06/23	kkh-06/23
Sieve Analysis (% passing 100 mesh)	78	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 20 mesh)	99	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 200 mesh)	24	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 30 mesh)	99	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 80 mesh)	86	%		RO-TAP SHAKER (5 MIN)	jjb-06/23	mjs-06/23



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Analysis	Level Found	Units	Detection Limit	Method	Analyst-Date	Verified-Date
<u>Sample ID: AGL02414</u>						
Moisture	9.83	%	0.10	AOAC 17E 950.01 100C	mgn-06/23	mjs-06/23
Calcium	17.60	%	0.01	ICAP	krr-06/19	mjs-06/23
Magnesium	10.60	%	0.01	ICAP	krr-06/19	mjs-06/23
Total Neutralizing Val(CaCO3 eq)	80.50	%	0.10	AOAC 955.01	mgn-06/19	mjs-06/23
ECCE	58.10	%		CALCULATED	jjb-06/23	mjs-06/23
Sieve analysis (% passing 4 mesh)	100	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 8 mesh)	94	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 60 mesh)	57	%		WET SIEVE	jjb-06/23	mjs-06/23
Mercury (total)	n.d.	mg/kg	0.05	EPA 7471	ccm-06/23	kkh-06/24
Zinc (total)	19.4	mg/kg	1.0	EPA 6010	akj-06/23	kkh-06/24
Selenium (total)	n.d.	mg/kg	10.0	EPA 6010	trh-06/23	kkh-06/24
Lead (total)	n.d.	mg/kg	5.0	EPA 6010	trh-06/23	kkh-06/24
Nickel (total)	3.4	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/24
Molybdenum (total)	n.d.	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/24
Cobalt (total)	1.8	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/24
Cadmium (total)	n.d.	mg/kg	0.50	EPA 6010	trh-06/23	kkh-06/24
Arsenic (total)	n.d.	mg/kg	10.0	EPA 6010	trh-06/23	kkh-06/24
Sieve Analysis (% passing 100 mesh)	47	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 20 mesh)	76	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 200 mesh)	34	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 30 mesh)	70	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 80 mesh)	49	%		RO-TAP SHAKER (5 MIN)	jjb-06/23	mjs-06/23



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Analysis	Level Found	Units	Detection Limit	Method	Analyst-Date	Verified-Date
<u>Sample ID: AGL02514</u>						
Moisture	4.04	%	0.10	AOAC 17E 950.01 100C	mgn-06/23	mjs-06/23
Calcium	21.10	%	0.01	ICAP	krr-06/19	mjs-06/23
Magnesium	12.60	%	0.01	ICAP	krr-06/19	mjs-06/23
Total Neutralizing Val(CaCO3 eq)	98.41	%	0.10	AOAC 955.01	mgn-06/19	mjs-06/23
ECCE	76.27	%		CALCULATED	jjb-06/23	mjs-06/23
Sieve analysis (% passing 4 mesh)	100	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 8 mesh)	100	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 60 mesh)	63	%		WET SIEVE	jjb-06/23	mjs-06/23
Mercury (total)	n.d.	mg/kg	0.05	EPA 7471	ccm-06/23	kkh-06/23
Zinc (total)	n.d.	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/23
Selenium (total)	n.d.	mg/kg	10.0	EPA 6010	trh-06/23	kkh-06/23
Lead (total)	n.d.	mg/kg	5.0	EPA 6010	trh-06/23	kkh-06/23
Nickel (total)	n.d.	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/23
Molybdenum (total)	n.d.	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/23
Cobalt (total)	n.d.	mg/kg	1.0	EPA 6010	trh-06/23	kkh-06/23
Cadmium (total)	n.d.	mg/kg	0.50	EPA 6010	trh-06/23	kkh-06/23
Arsenic (total)	n.d.	mg/kg	10.0	EPA 6010	trh-06/23	kkh-06/23
Sieve Analysis (% passing 100 mesh)	52	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 20 mesh)	87	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 200 mesh)	36	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 30 mesh)	77	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 80 mesh)	56	%		RO-TAP SHAKER (5 MIN)	jjb-06/23	mjs-06/23

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Analysis	Level Found	Units	Detection Limit	Method	Analyst-Date	Verified-Date
<u>Sample ID: AGL02614</u>						
Moisture	17.72	%	0.10	AOAC 17E 950.01 100C	mgn-06/23	mjs-06/23
Calcium	21.40	%	0.01	ICAP	krr-06/19	mjs-06/23
Magnesium	0.21	%	0.01	ICAP	krr-06/19	mjs-06/23
Total Neutralizing Val(CaCO ₃ eq)	2.23	%	0.10	AOAC 955.01	mgn-06/19	mjs-06/23
ECCE	2.23	%		CALCULATED	jjb-06/23	mjs-06/23
Sieve analysis (% passing 4 mesh)	100	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 8 mesh)	100	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 60 mesh)	100	%		WET SIEVE	jjb-06/23	mjs-06/23
Mercury (total)	1.32	mg/kg	0.05	EPA 7471	cjm-06/27	bab-07/01
Zinc (total)	11.1	mg/kg	1.0	EPA 6010	akj-06/27	bab-07/01
Selenium (total)	n.d.	mg/kg	10.0	EPA 6010	trh-06/27	bab-07/01
Lead (total)	n.d.	mg/kg	5.0	EPA 6010	trh-06/27	bab-07/01
Nickel (total)	2.6	mg/kg	1.0	EPA 6010	trh-06/27	bab-07/01
Molybdenum (total)	n.d.	mg/kg	1.0	EPA 6010	trh-06/27	bab-07/01
Cobalt (total)	n.d.	mg/kg	1.0	EPA 6010	trh-06/27	bab-07/01
Cadmium (total)	n.d.	mg/kg	0.50	EPA 6010	trh-06/27	bab-07/01
Arsenic (total)	n.d.	mg/kg	10.0	EPA 6010	trh-06/27	bab-07/01
Sieve Analysis (% passing 100 mesh)	100	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 20 mesh)	100	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 200 mesh)	98	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 30 mesh)	100	%		WET SIEVE	jjb-06/23	mjs-06/23
Sieve Analysis (% passing 80 mesh)	100	%		RO-TAP SHAKER (5 MIN)	jjb-06/23	mjs-06/23

Notes:

n.d. - Not Detected.

AOAC - Association of Official Analytical Chemists.

ICAP - Inductively Coupled Argon Plasma.

ECCE (Effective Calcium Carbonate Equivalent) represents the Total Neutralizing Value (CaCO₃ Equivalent) adjusted for effectiveness

For questions contact



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Notes:

based on the particle size of the Lime. This percentage (ECCE)
multiplied by 20 yields the lbs. of effective Lime per ton of material.
Sample(s) was prepared for EPA 6010 analysis by EPA method 3050b.

Rob Ferris
Client Service Representative

rob.ferris@midwestlabs.com (402) 829-9871