



**Alloway**  
Your Resource for Defensible Data

August 29, 2007

Akzo Nobel Functional Chemicals LLC  
Attn: Jim LePage  
Technical Service & Development Manager - Chelates  
525 West Van Buren Street  
Chicago, IL 60607

Project: Micronutrient Samples  
All 6010 metals digested by method 3010A.  
Arsenic, Selenium, and Mercury digestions performed per analytical  
method numbers documented below.

Lab Number: 201526 Sample ID: E-Cu-8  
Sample ID: Batch 33919

Receive Date: 08/06/2007 Collect Date: 07/27/2007 Containers: 1  
Matrix: liquid

Parameter Name	Results	Units	MDL	Method	Analyst / Date
Arsenic, Total	5.30	ppm	0.250	7060A	AB 8/24/2007
Barium, Total	<1.00	ppm	1.00	6010	AB 8/27/2007
Cadmium, Total	4.69	ppm	0.300	6010	AB 8/27/2007
Chromium, Total	<0.700	ppm	0.700	6010	AB 8/27/2007
Cobalt, Total	<2.00	ppm	2.00	6010	AB 8/27/2007
Copper, Total	70800.	ppm	0.800	6010	AB 8/27/2007
Lead, Total	16.0	ppm	1.00	6010	AB 8/27/2007
Manganese, Total	<1.00	ppm	1.00	6010	AB 8/28/2007
Mercury, Total	<0.100	ppm	0.100	7471A	MBU 8/28/2007
Molybdenum, Total	2.66	ppm	2.00	6010	AB 8/27/2007
Nickel, Total	3.52	ppm	0.800	6010	AB 8/27/2007
Selenium, Total	<0.200	ppm	0.200	7740	AB 8/24/2007
Silver, Total	<0.500	ppm	0.500	6010	AB 8/27/2007
Zinc, Total	77.5	ppm	1.00	6010	AB 8/27/2007

Analysis Certified By: Marius Bolek  
Ohio EPA Certification: Bacteriological 833

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Project: Micronutrient Samples  
All 6010 metals digested by method 3010A.  
Arsenic, Selenium, and Mercury digestions performed per analytical  
method numbers documented below.

Lab Number: 201527 Sample ID: E-Mn-6  
Sample ID: ELMN6

Receive Date: 08/06/2007 Collect Date: 07/16/2007 Containers: 1  
Matrix: liquid

Parameter Name	Results	Units	MDL	Method	Analyst / Date
Arsenic, Total	<0.250	ppm	0.250	7060A	AB 8/24/2007
Barium, Total	<1.00	ppm	1.00	6010	AB 8/27/2007
Cadmium, Total	<0.300	ppm	0.300	6010	AB 8/27/2007
Chromium, Total	4.61	ppm	0.700	6010	AB 8/27/2007
Cobalt, Total	7.39	ppm	2.00	6010	AB 8/27/2007
Copper, Total	4.75	ppm	0.800	6010	AB 8/27/2007
Lead, Total	6.43	ppm	1.00	6010	AB 8/27/2007
Manganese, Total	65300.	ppm	1.00	6010	AB 8/28/2007
Mercury, Total	<0.100	ppm	0.100	7471A	MBU 8/28/2007
Molybdenum, Total	<2.00	ppm	2.00	6010	AB 8/27/2007
Nickel, Total	<0.800	ppm	0.800	6010	AB 8/27/2007
Selenium, Total	<0.200	ppm	0.200	7740	AB 8/24/2007
Silver, Total	12.2	ppm	0.500	6010	AB 8/27/2007
Zinc, Total	9.21	ppm	1.00	6010	AB 8/27/2007

Analysis Certified By: Maria Bolek  
Ohio EPA Certification: Bacteriological 833

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All 6010 metals digested by method 3010A.  
Arsenic, Selenium, and Mercury digestions performed per analytical  
method numbers documented below.

Lab Number: 201528 Sample ID: E-Cu-8  
Sample ID: Batch 33076

Receive Date: 08/06/2007 Collect Date: 07/27/2007 Containers: 1  
Matrix: liquid

Parameter Name	Results	Units	MDL	Method	Analyst / Date
Arsenic, Total	6.10	ppm	0.250	7060A	AB 8/24/2007
Barium, Total	<1.00	ppm	1.00	6010	AB 8/27/2007
Cadmium, Total	5.12	ppm	0.300	6010	AB 8/27/2007
Chromium, Total	<0.700	ppm	0.700	6010	AB 8/27/2007
Cobalt, Total	<2.00	ppm	2.00	6010	AB 8/27/2007
Copper, Total	84300.	ppm	0.800	6010	AB 8/27/2007
Lead, Total	17.7	ppm	1.00	6010	AB 8/27/2007
Manganese, Total	9.01	ppm	1.00	6010	AB 8/28/2007
Mercury, Total	<0.100	ppm	0.100	7471A	MBU 8/28/2007
Molybdenum, Total	<2.00	ppm	2.00	6010	AB 8/27/2007
Nickel, Total	5.14	ppm	0.800	6010	AB 8/27/2007
Selenium, Total	<0.200	ppm	0.200	7740	AB 8/24/2007
Silver, Total	<0.500	ppm	0.500	6010	AB 8/27/2007
Zinc, Total	92.4	ppm	1.00	6010	AB 8/27/2007

Analysis Certified By: Mark Bolch  
Ohio EPA Certification: Bacteriological 833

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Project: Micronutrient Samples  
All 6010 metals digested by method 3010A.  
Arsenic, Selenium, and Mercury digestions performed per analytical  
method numbers documented below.

Lab Number: 201529 Sample ID: E-Zn-9  
Sample ID: EZN9

Receive Date: 08/06/2007 Collect Date: 05/30/2007 Containers: 1  
Matrix: liquid

Parameter Name	Results	Units	MDL	Method	Analyst / Date
Arsenic, Total	<0.250	ppm	0.250	7060A	AB 8/24/2007
Barium, Total	<1.00	ppm	1.00	6010	AB 8/27/2007
Cadmium, Total	0.369	ppm	0.300	6010	AB 8/27/2007
Chromium, Total	<0.700	ppm	0.700	6010	AB 8/27/2007
Cobalt, Total	<2.00	ppm	2.00	6010	AB 8/27/2007
Copper, Total	6.96	ppm	0.800	6010	AB 8/27/2007
Lead, Total	4.11	ppm	1.00	6010	AB 8/27/2007
Manganese, Total	89.9	ppm	1.00	6010	AB 8/27/2007
Mercury, Total	<0.100	ppm	0.100	7471A	MBU 8/28/2007
Molybdenum, Total	<2.00	ppm	2.00	6010	AB 8/27/2007
Nickel, Total	<0.800	ppm	0.800	6010	AB 8/27/2007
Selenium, Total	<0.200	ppm	0.200	7740	AB 8/24/2007
Silver, Total	0.543	ppm	0.500	6010	AB 8/27/2007
Zinc, Total	96300.	ppm	1.00	6010	AB 8/27/2007

Analysis Certified By: Marius Bolch  
Ohio EPA Certification: Bacteriological 833

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**Project: Micronutrient Samples**

All 6010 metals digested by method 3010A.

Arsenic, Selenium, and Mercury digestions performed per analytical method numbers documented below.

All 6020 metals digested by Method 3050

Lab Number: 201530 Sample ID: E-Fe-13  
Sample ID: E-FE-13

The Cd, Cr, & Pb results by Method 6010 (ICP) are biased high due to the high levels of iron based upon the ICP/MS results that yielded no detection for these metals

Receive Date: 08/06/2007 Collect Date: 06/28/2007 Containers: 1  
Matrix: solid

Parameter Name	Results	Units	MDL	Method	Analyst / Date
Arsenic, Total	<0.500	ppm	0.500	7060A	AB 8/24/2007
Barium, Total	<1.00	ppm	1.00	6010	AB 8/28/2007
Cadmium, Total	<1.0	ppm	1.0	6020	RCM 8/23/2007
Cadmium, Total	39.9	ppm	0.300	6010	AB 8/28/2007
Chromium, Total	9.46	ppm	0.700	6010	AB 8/28/2007
Chromium, Total	<2.1	ppm	2.1	6020	RCM 8/23/2007
Cobalt, Total	<2.00	ppm	2.00	6010	AB 8/28/2007
Copper, Total	<0.800	ppm	0.800	6010	AB 8/28/2007
Lead, Total	22.8	ppm	1.00	6010	AB 8/28/2007
Lead, Total	<10.	ppm	10.0	6020	RCM 8/23/2007
Manganese, Total	2.82	ppm	1.00	6010	AB 8/28/2007
Mercury, Total	<0.100	ppm	0.100	7471A	MBU 8/28/2007
Molybdenum, Total	<2.00	ppm	2.00	6010	AB 8/28/2007
Nickel, Total	<0.800	ppm	0.800	6010	AB 8/28/2007
Selenium, Total	<0.400	ppm	0.400	7740	AB 8/24/2007
Silver, Total	<0.500	ppm	0.500	6010	AB 8/28/2007
Zinc, Total	2.08	ppm	1.00	6010	AB 8/28/2007

Analysis Certified By: Mary Bolek  
Ohio EPA Certification: Bacteriological 833

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Project: Micronutrient Samples  
All 6010 metals digested by method 3010A.  
Arsenic, Selenium, and Mercury digestions performed per analytical  
method numbers documented below.  
All 6020 metals digested by Method 3050

Lab Number: 201531 Sample ID: E-Fe-13  
Sample ID: E-FE-13

The Cd, Cr, & Pb results by Method 6010 (ICP) are biased high due to the high levels of iron based upon the ICP/MS results that yielded no detection for these metals

Receive Date: 08/06/2007 Collect Date: 07/02/2007 Containers: 1  
Matrix: solid

Parameter Name	Results	Units	MDL	Method	Analyst / Date
Arsenic, Total	<0.500	ppm	0.500	7060A	AB 8/24/2007
Barium, Total	<1.00	ppm	1.00	6010	AB 8/28/2007
Cadmium, Total	<1.0	ppm	1.0	6020	RCM 8/23/2007
Cadmium, Total	38.9	ppm	0.300	6010	AB 8/28/2007
Chromium, Total	11.3	ppm	0.700	6010	AB 8/28/2007
Chromium, Total	<2.0	ppm	2.0	6020	RCM 8/23/2007
Cobalt, Total	<2.00	ppm	2.00	6010	AB 8/28/2007
Copper, Total	<0.800	ppm	0.800	6010	AB 8/28/2007
Lead, Total	22.4	ppm	1.00	6010	AB 8/28/2007
Lead, Total	<10.	ppm	10.	6020	RCM 8/23/2007
Manganese, Total	19.2	ppm	1.00	6010	AB 8/28/2007
Mercury, Total	0.105	ppm	0.100	7471A	MBU 8/28/2007
Molybdenum, Total	<2.00	ppm	2.00	6010	AB 8/28/2007
Nickel, Total	1.27	ppm	0.800	6010	AB 8/28/2007
Selenium, Total	<0.400	ppm	0.400	7740	AB 8/24/2007
Silver, Total	<0.500	ppm	0.500	6010	AB 8/28/2007
Zinc, Total	2.69	ppm	1.00	6010	AB 8/28/2007

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### Chain of Custody Record

1101 North Cole Street, Lima, OH 45805  
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**Report To:** Name: Jim LePage  
Company: Allyp-Nobel  
Address: \_\_\_\_\_  
Phone No: \_\_\_\_\_  
E-mail: \_\_\_\_\_

**Invoice To (If Different):** Name: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
Fax No: \_\_\_\_\_  
PO No: \_\_\_\_\_

**Notes:**  
NO chain of custody  
rec'd with samples.

**Project Name** \_\_\_\_\_

**Sampler** \_\_\_\_\_

**Matrix Codes:**  
ww - wastewater  
gw - groundwater  
s - solid  
w - water  
sg - sludge  
o - other

Sample ID / Sample Location	Customer	Sample Date	Sample Time	Comp.	Grab	Matrix	Number of Containers	Alloway LIMS #	Analysis Required	
									ww - wastewater	gw - groundwater
1	Dissolvine ECU-8 Batch 33919	7/27/07				liquid	1	201526		Metals
2	ELMNLU	7/16/07				liquid	1	201527		
3	Dissolvine ECU-8 Batch 33076	7/27/07				liquid	1	201528		
4	EZNG	5/30/07				liquid	1	201529		
5	E-FE-13	6/28/07				solid	1	201530		Cd, Pb, Cr also by ICP/MS
6	E-FE-13	7/2/07				solid	1	201531		Metals Cd, Pb, Cr also by ICP/MS
7										
8										

**Relinquished by:** \_\_\_\_\_

**Received by:** \_\_\_\_\_

**Date** \_\_\_\_\_

**Time** \_\_\_\_\_

**Priority**

24 Hrs

48 Hrs

3 Working Days

Routine (5-10 Working days)

Other: \_\_\_\_\_

**Method of Shipment** \_\_\_\_\_

Received for Laboratory By: \_\_\_\_\_  
(Signature) \_\_\_\_\_

8/16/07 11:00

White - Lab Copy  
Yellow - Client Copy