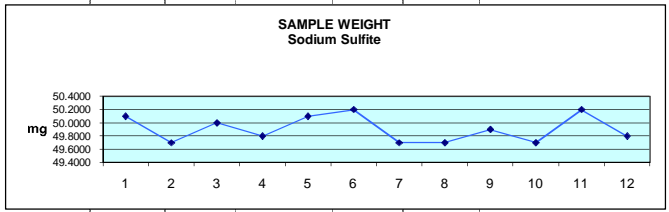


Customer									
Material		Est. Bulk Density (gm/cc)	From Table	Date	10/10/2006				
	Sodium Sulfite		1.63						
	Potassium Dihydrogen Citrate	0.70							
	Ammonium Chloride		0.61						
	Ascorbic Acid		0.72						
	Sodium Thiosulfate		0.88						
Desired Sample size	See Customer letter			rh	55%				
Desired accuracy	Std +/- Best results			Pipette Size	0.125 and 0.092 (special proto)				

5 micron filter cup

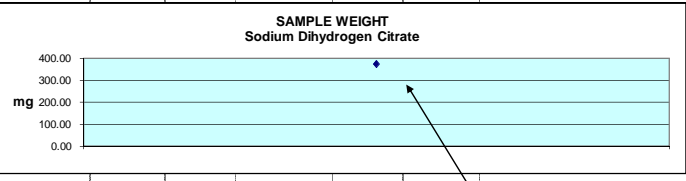
Micrometer setting 0.125 dia pipette 0.12	Sample weight	50 mg
		50.10
		49.70
		50.00
		49.80
		50.10
		50.20
		49.70
		49.70
		49.90
		49.70
		50.20
		49.80
		49.91 Av
		49.91 Mean
	0.20 Std Dev	

Control unit settings	
Vacuum (1 in hg)	20
Air (psi)	4



Micrometer setting 0.250 dia. Pipette 0.53	Sample weight	375 mg
		374.80
		375.14
		378.00
		371.60
		378.60
		379.20
		380.00
		380.60
		372.10
		377.50
		376.90
		374.20
		376.55 Av
		376.76 Mean
	3.02 Std Dev	

Vacuum (1 in hg)	8
Air (psi)	4

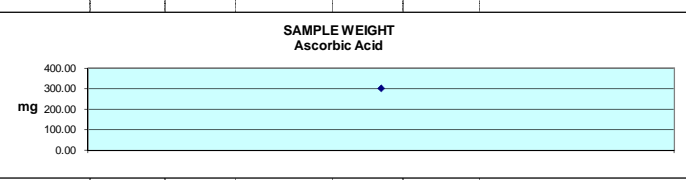


Granular, clumpy, hygroscopic powder

Shallow end of sample boat  
Hightap density due to pipette packing

Micrometer setting 0.250 dia. Pipette 0.53	Sample weight	300 mg
		300.60
		304.20
		299.90
		299.20
		300.20
		299.20
		302.20
		304.10
		298.80
		302.10
		301.10
		301.40
		301.08 Av
		301.05 Mean
	1.89 Std Dev	

Vacuum (1 in hg)	10
Air (psi)	4



Micrometer setting  
0.250 dia. Pipette  
0.09

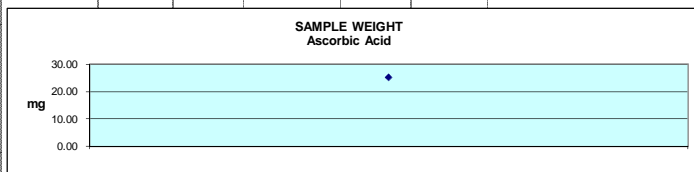
25 mg

25.10  
24.80  
24.90  
26.00  
24.60  
24.30  
24.90  
25.90  
24.70  
25.20  
25.30  
24.80

25.04 Av  
25.06 Mean  
0.52 Std Dev

10

4



Micrometer setting  
0.250 dia. Pipette  
0.15

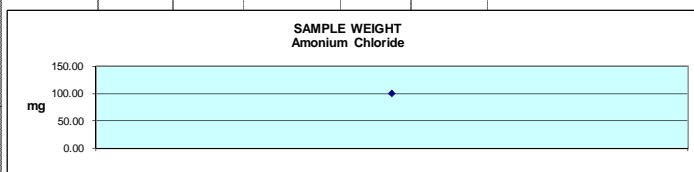
100 mg

99.90  
100.60  
100.40  
99.90  
102.60  
100.80  
99.80  
102.00  
102.00  
101.40  
100.10  
98.80

100.69 Av  
100.86 Mean  
0.99 Std Dev

10

4



>Sifted powder prior to testing.  
>Very granular material. Many clumps as delivered. Hydroscopic, moisture weight gain  
> Larger clumps generated air voids and subsequent sample weight loss.

Micrometer setting  
0.125 dia. Pipette  
0.80

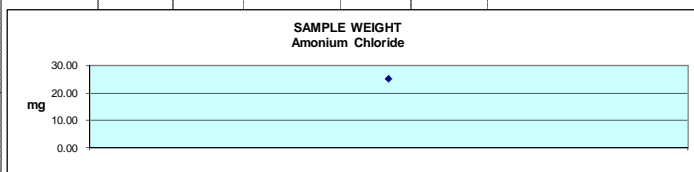
25 mg

25.20  
25.30  
25.70  
26.00  
26.00  
25.20  
25.60  
25.30  
25.10  
25.20  
24.60  
24.80

25.33 Av  
25.38 Mean  
0.41 Std Dev

10

4



>Sifted powder prior to testing.  
>Very granular material. Many clumps as delivered. Hydroscopic, moisture weight gain  
> Larger clumps generated air voids and subsequent sample weight loss.

Micrometer setting  
0.125 dia. Pipette  
0.20

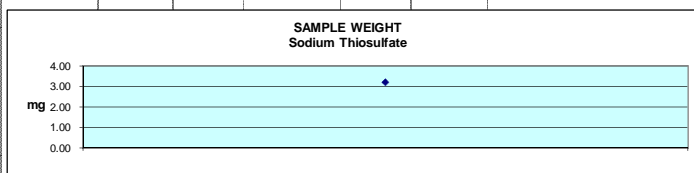
3mg

3.20  
2.80  
3.80  
3.60  
4.00  
3.80  
4.10  
3.60  
4.40  
3.40  
3.20  
4.00

3.66 Av  
3.60 Mean  
0.46 Std Dev

18

11



>Sifted powder prior to testing.  
>Very granular material. Many clumps as delivered. Hydroscopic, moisture weight gain  
>variation in grain size causes >2% weight deviation at 3mg sample size.

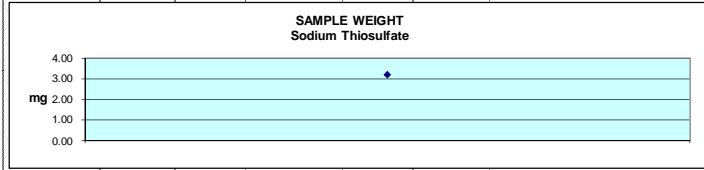
Micrometer setting  
0.125 dia. Pipette

4 mg

18

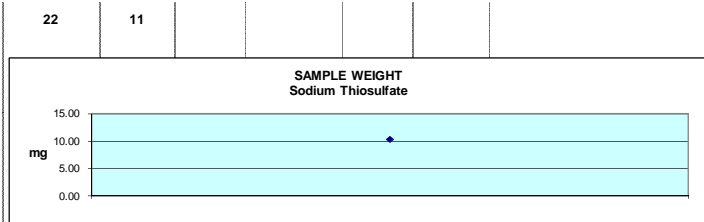
11

0.30	4.00 3.60 3.80 4.20 4.00 3.80 4.00 3.40 4.60 3.60 3.90 4.60
	3.96 Av 3.89 Mean 0.33 Std Dev



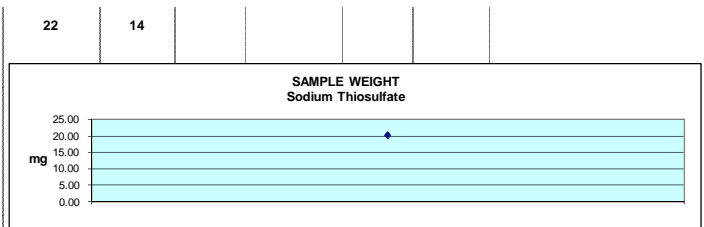
>Sifted powder prior to testing.  
 >Very granular material. Many clumps as delivered. Hydroscopic, moisture weight gain  
 >variation in grain size causes >2% weight deviation at 4mg sample size.  
 >Difficult to set pipette volume between 3mg and 4 mg. See above

Micrometer setting 0.125 dia. Pipette 0.30	10mg 10.30 10.60 10.20 10.00 11.10 11.30 11.20 9.00 11.50 12.00 8.90 11.50
	10.63 Av 10.51 Mean 1.00 Std Dev



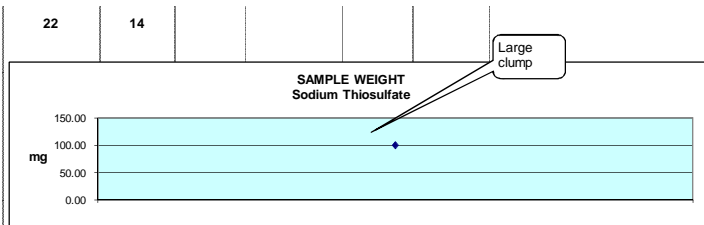
>Sifted powder prior to testing.  
 >Very granular material. Many clumps as delivered. Hydroscopic, moisture weight gain  
 >variation in grain size causes >2% weight deviation at 10mg sample size.  
 >Clumps in pipette cause air voids.

Micrometer setting 0.250 dia. Pipette 0.03	20.00 20.20 21.00 21.30 19.90 22.00 21.30 20.20 22.10 19.80 20.30 20.60 20.10
	20.73 Av 20.78 Mean 0.81 Std Dev



>Sifted powder prior to testing.  
 >Very granular material. Many clumps as delivered. Hydroscopic, moisture weight gain  
 >variation in grain size causes >2% weight deviation at 10mg sample size.  
 >Clumps in pipette cause air voids.

Micrometer setting 0.250 dia. Pipette 0.16	100 mg 99.80 99.90 101.00 100.60 97.90 110.10 99.80 102.20 104.20 105.30 107.00 100.90
	102.39 Av 102.47 Mean 3.70 Std Dev



>Sifted powder prior to testing.  
 >Very granular material. Many clumps as delivered. Hydroscopic, moisture weight gain  
 >variation in grain size causes >2% weight deviation at 10mg sample size.  
 >Clumps in pipette cause air voids and or large weight gain.