SUGGESTED QUALITY CONTROL CHARTS

QA Chart 1

NIR RESULTS for REPLICATE SAMPLES

Lot #	APE 1					APE 2			
	Rep 1	Rep 2	AVG	R1-R2	Lot #	Rep 1	Rep 2	AVG	R1-R2
1	0.55	0.58	0.57	-0.03	2	0.52	0.57	0.55	-0.05
3	0.57	0.53	0.55	0.04	4	0.60	0.55	0.58	0.05
5	0.58	0.61	0.60	-0.03	6	0.55	0.59	0.57	-0.04
7	0.59	0.56	0.58	0.03	8	0.62	0.57	0.60	0.05
9	0.60	0.64	0.62	-0.04	10	0.60	0.63	0.62	-0.03
11	0.55	0.51	0.53	0.04	12	0.58	0.52	0.55	0.06
13	0.57	0.55	0.56	0.02	14	0.54	0.56	0.55	-0.02
15	0.58	0.62	0.60	-0.04	16	0.61	0.60	0.61	0.01
17	0.59	0.63	0.61	-0.04	18	0.56	0.61	0.59	-0.05
19	0.60	0.58	0.59	0.02	20	0.60	0.56	0.58	0.04
			s	0.035				s	0.045

s = standard deviation

QA Chart 2

NIR CROSS CHECK

Lot #	APE 1	APE 2	A1-A2
10	0.58	0.60	0.02
20	0.84	0.89	-0.05
30	0.71	0.72	-0.01
40	0.65	0.60	0.05
		Bias	0.003
		s	0.043

QA Chart 3

NIR vs HPLC RESULTS

Lot #	NIR	HPLC	NIR-HPLC
20	0.55	0.60	-0.05
40	0.57	0.50	0.07

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60	0.60	0.65	-0.05									
80	0.58	0.51	0.07									
100	0.62	0.70	-0.08									
120	0.28	0.33	0.05	Cat A	HPLC overrides NIR							
140	0.34	0.29	0.05	Cat C								
160	0.60	0.66	-0.06									
180	0.61	0.66	-0.05									
200	0.69	0.58	0.11									
		Bias	0.013									
		s	0.070									

Example of Remaining Effective Stabilizer (RES) Calcualtion						
			HPLC			
#	Stabilizer		Measured	Correction	Corr'd.	
	Component		Amt.	Factor	Amt.	
1	Diphenylamine (DPA)		0.170	1.000	0.170	
2	n-Nitroso Diphenylamine		0.150	0.000	0.000	
3	2 -Nitro Diphenylamine		0.080	0.790	0.063	
4	4- Nitro Diphenylamine		0.030	0.790	0.024	
5	2-2' Dinitro Diphenylamine		0.020	0.653	0.013	
6	2-4 Dinitro Diphenylamine		0.000	0.653	0.000	
7	2-4' Dinitro Diphenylamine		0.020	0.653	0.013	
8	4-4' Dinitro Diphenylamine		0.010	0.653	0.007	
		Total stabilizer	0.33	RES	0.29	
			Cat. A		Cat. C	
	Notes					
	RES is the sum of the corrected amounts					
	Amounts are expressed as weight %					
	n-Nitroso Diphenylamine is NOT added into total					
	Correction factor takes into account effectiveness of each component					
	In above example, RES = 0.29% (Cat C), not 0.33% (Cat A)					
	NIR results are always corrected values					