CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2015
DateRun:	09/16/2015
Experimenters:	Alicia Melvin
ClientType:	Cleaning Equipment Mfr
ProjectNumber:	Project #1
Substrates:	Stainless Steel
PartType:	Coupon
Contaminants:	Greases, Food
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	Abraision Testing of Series 1
Experimental Procedure:	The TURI Lab recently completed an evaluation on the life span of the ozone in a Series 1. Tersano Series 1 is reported to stabilize sanitation time for up to four hours, operating time for up to 3 days, and have a filter cartridge life of 1,600 gallons. It claims to replace all all-purpose cleaners, stainless steel cleaners, glass cleaners, neutral cleaners, and deodorizers. Initial weights of stainless-steel coupons were recorded and then coated with 0.5 grams of DCC-17 soil. The coupons air dried overnight and dirty weights were recorded the next day. A clean 5-gallon bucket was filled to the 4-gallon marker 3 times with the ozone water. In a clean 1000ml glass beaker, ozone was collected to the 800ml marker. Three dirty coupons were placed on the abrasion machine at a time per abrasion trial. Using a spray nossil, the ozone water was sprayed once on each dirty coupon and then once on a wypal towel. The machine was run for 20 cycles (30 seconds of cleaning), and then the clean coupons were removed to air dry overnight on a tray. This process was repeated for the 30min, 60min, 120min, and 240min mark for Series 1 with the same sample of ozone water per trial. Clean weights were recorded for percentage removal the next day. DCC-17-33% vegetable shortening; 33% lard; 33% vegetable oil; 1% carbon lampblack.
Results:	Cleaning levels were maintained over a 4-hour window. Trial 1

Cleaner	Coupon #	Initial wt of cont.	Final wt of cont.	%Cont Removed
03 (0 Min)	16	0.5015	0.0381	92.40
03 (0 Min)	15	0.4997	0.0322	93.56
03 (0 Min)	27	0.4497	0.0335	92.55
03 (30 Min)	6	0.5055	0.0443	91.24
03 (30 Min)	31	0.5032	0.0353	92.98
03 (30 Min)	4	0.5001	0.0259	94.82
03 (60 Min)	25	0.4984	0.0275	94.48
03 (60 Min)	24	0.4999	0.0266	94.68
03 (60 Min)	14	0.5024	0.0267	94.69
03 (120 Min)	7	-0.3990	0.0278	106.97
03 (120 Min)	2	0.5405	0.0333	93.84
03 (120 Min)	4	1.1476	0.0266	97.68
03 (240 Min)	14	1.3192	0.0348	97.36
03 (240 Min)	26	1.1809	0.0452	96.17
	6	0.3776	0.0340	91.00

CLEANING LABORATORY EVALUATION SUMMARY

03 (240 Min)				

Trial 2

Trial 2				
Cleaner	Coupon #	Initial wt of cont.	Final wt of cont.	%Cont Removed
03 (0 Min)	20	0.5044	0.0405	91.97
03 (0 Min)	24	0.4265	0.0250	94.14
03 (0 Min)	3	0.5213	0.0342	93.44
03 (30 Min)	18	0.4989	0.0320	93.59
03 (30 Min)	4	0.5091	0.0325	93.62
03 (30 Min)	15	0.5052	0.0343	93.21
03 (60 Min)	26	0.5057	0.0237	95.31
03 (60 Min)	24	0.4926	0.0249	94.95
03 (60 Min)	6	0.5038	0.0452	91.03
03 (120 Min)	28	0.3610	0.0321	91.11
03 (120 Min)	15	0.4761	0.0332	93.03
03 (120 Min)	3	0.8423	0.0251	97.02
03 (240 Min)	5	0.6752	0.0253	96.25
03 (240 Min)	8	0.8218	0.0211	97.43
03 (240 Min)	13	0.5740	0.0224	96.10

Trial 3

Cleaner	Coupon #	Initial wt of cont.	Final wt of cont.	%Cont Removed
03 (0 Min)	13	0.5129	0.0441	91.40
03 (0 Min)	10	0.5837	0.0374	93.59
03 (0 Min)	6	0.5309	0.0416	92.16
03 (30 Min)	4	0.4779	0.0369	92.28
03 (30 Min)	16	0.3281	0.0420	87.20
03 (30 Min)	9	0.5738	0.0321	94.41
03 (60 Min)	28	0.4151	0.0428	89.69
03 (60 Min)	8	0.4793	0.0433	90.97
03 (60 Min)	25	0.5699	0.0438	92.31
03 (120 Min)	28	0.5843	0.0515	91.19
03 (120 Min)	17	0.5306	0.0434	91.82
03 (120 Min)	23	0.5183	0.0392	92.44
	14	0.5005	0.0507	89.87

CLEANING LABORATORY EVALUATION SUMMARY

03 (240 Min)				
03 (240 Min)	25	0.5517	0.0511	90.74
03 (240 Min)	21	0.5463	0.0440	91.95

Summary:

Substrates:	Stainless Steel				
Contaminants:	Greases, Food				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Lotus Pro Tersano	Ozonated water Stabilized	100	93.52	☑	Series 1 stabilzer

Conclusion: Cleaning levels remained fairly constant over a four-hour time frame.