CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2010

DateRun: 04/15/2010

Experimenters: Jason Marshall

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Liquid

PartType: Coupon

Contaminants: Oil

Cleaning Methods: Immersion/Soak

Analytical Methods: Visual

Purpose: Evaluate the oil separation ability of aqueous degreaser for GS 34

Experimental Procedure: The oil/cleaner separation shall be performed at the temperature suggested by the degreaser supplier for best separation performance. Dilute the degreaser to the manufacturer's recommended dilution with distilled/deionized water. Pour 720 mL of the diluted aqueous degreaser solution into the volumetric cylinder. To this add 80 mL of the oil. Measure the initial total height of the liquids in the cylinder (A = initial height). It should be close to 16 cm. Stir the mixture for 30 minutes with a magnetic stirrer at the highest setting that does not result in any of the mixture spilling from the container.

Upon completion of the 30-minute stirring time, the stirrer was turned off. The mixture was allowed to sit for 20 minutes allowing the liquid mixture separate. As the mixture sits, three phases will form. The top phase will be the oil, the middle phase will be the dispersed phase, which consists of both the oil and the cleaning solution, and the bottom phase will consist only of the cleaning solution and water. After the 20 minutes has elapsed, measure the height of the dispersed, or middle, phase (B = final height).

The separation ability was calculated using the following formula: [(A-B)/A]100 = percent separation.

If the percent separation exceeds 95% in two out of three tests, the degreaser meets the performance standard for separation.

Results: Two trials had oil water separation over 95%. The third reading was not needed. The table lists the initial height, final height and calculated percent separation for the 6% dilution.

Trial	Initial Height (A)	Middle Section (B) A-B	(A-B/ A)100	Exceeds 95%	
1	17.3	0.2	17.1	98.8	+
2	17.8	0.1	17.7	99.4	+

Summary:

Substrates:	Liquid				
Contaminants:	Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
DeltaGreen LLC	DeltaGreen Concentrate All Purpose and Degreaser	6	99.10	☑	

Conclusion: The percent separation exceeds the 95% level specified in GS 34 in two trials, therefore the degreaser meets the performance standard for separation.