CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2015

DateRun: 02/23/2015

Experimenters: Luis Raudales

ClientType: General

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Paints

Cleaning Methods: Immersion/Soak

Analytical Methods: Visual

Purpose: To evaluate five paint cleaner products for manual removal of paint from stainless steel coupons.

Experimental Procedure: Fifteen pre-weighted coupons were double coated with the supplied paint. Once dried, a second weight was recorded to determine the amount of paint added to the coupon. In groups of three, the coupons were then submerged in five beakers with 120 ml of different liquid paint cleaners (strippers). Three coupons were submerged in each beaker for 5 minutes and cleaned with a plastic scrapper. Each coupon was scrapped slowly three times. The coupons were then rated for the paint removal at that point. Then, they were submerged again in the beaker. This process was repeated every 5 minutes for a total time of 30 minutes. All these products were used at full strength and room temperature, except for D-Zolve 917, which was used at a concentration of 10% diluted in water. The coupons were overnight dried, and a third weight was recorded to determine the amount of paint was removed and efficiency was calculated.

Visual Performance ranking:
1) Excellent Total Removal
2) Good Removal
3) Fair Removal
4) Soften Paint
5) No Removal

Results:

Cleaner	5 min	10 min	15 min	20 min	25 min	30 min
Zemosol	4	4	2	1	1	1
Green Strip #10	3	2	2	2	1	1
D Zolve 917	5	5	5	5	5	5
Sky Kleen	5	4	4	4	3	3
Graffiti Remover	4	3	3	3	3	3

Summary:

Substrates:	Stainless Steel				
Contaminants:	Paints				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
TBF Environmental Technologies	ZemaSol		0.00	☑	
Chimista Specialty Chemicals	GreenStrip 10 Biobased paint stripper		0.00	☑	
Solutia	Sky Kleen 1000 (Aviation Solvent)		0.00	☑	
Twin Rivers Technologies	Graffiti Remover		0.00	☑	
Transene Company, Inc.	D Zolve 917	10	0.00	☐	

Conclusion: Zemazol Avoc presented the higher efficiency by separating the paint from the coupon and Chimista # 10 by dissolving it; both begun to work by the first five minutes of the test. Graffiti Remover and Sky kleen both worked by dissolving the paint, beginning their efficiency close to the 20-minute marker during the test. D-Zolve 917 did not remove the paint after the experiment concluded.

Future testing may require increasing the cleaner temperature to analyze the impact on efficiency and also the use of a napkin to remove the excess of cleaner before it gets mixed with the paint prior the overnight drying period.