CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2005

DateRun: 08/03/2005

Experimenters: Jason Marshall, Heidi Wilcox

ClientType: Metal Finishing

ProjectNumber: Project #1

Substrates: Brass

PartType: Coupon

Contaminants: Buffing/Polishing Compounds

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To evaluate successful products on the third supplied buffing compound using immersion cleaning.

Experimental Procedure: Six products from the previous trial were selected based on performance. Each product was used at full strength at room temperature. A 250 ml beaker was filled with each product and placed on a stir plate.

Eighteen preweighed 260 Brass coupons were coated with the ETA Brown buffing compound. The compound was applied by heating the coupons and the buffing compound with a Master Appliance Heat Gun. The hot buffing compound was rubbed across the surface. Coupons were allowed to cool to room temperature and weighed a second time to determine the amount of contaminant applied. Three coupons were cleaned in each product for 5 minutes using stir-bar agitation. After cleaning, the parts were allowed to air dry for 10 minutes at room temperature. Once dry, final weights were recorded and efficiencies were calculated for each product.

Results: Three products removed over 90% of the buffing compound. The other three removed around 80% of the buffing compound. The table below lists the amount of soil added, the amount remaining and the efficiency for each coupon cleaned.

Cleaner	Initial wt	Final wt	% Removed
Ensolv	0.0097	0.0001	98.97
	0.0020	0.0001	95.00
	0.0020	0.0002	90.00
CCA	0.0046	0.0006	86.96
	0.0077	0.0007	90.91
	0.0038	0.0001	97.37
MCA	0.0203	0.0035	82.76
	0.0173	0.0002	98.84
	0.0307	0.0113	63.19
Lenium ES	0.0126	-0.0001	100.79
	0.0069	0.0004	94.20
	0.0043	0.0000	100.00
Solvon IP	0.0112	0.0048	57.14
	0.0999	0.0058	94.19
	0.0271	0.0035	87.08
Solvon PB	0.0070	0.0009	87.14
	0.0110	0.0043	60.91
	0.0142	0.0049	65.49

Summary:

Substrates:	Brass
Contaminants:	Buffing/Polishing Compounds

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Enviro Tech International Inc	Ensolv	100	94.66	☑	
DuPont	Vertrel CCA	100	91.74	☑	
DuPont	Vertrel MCA	100	81.60	☑	
Petroferm Inc	Lenium ES	100	98.33	☑	
Poly Systems USA Inc	Solvon Kreussler IP	100	79.47	☑	
Poly Systems USA Inc	Solvon Kreussler PB	100	71.18	☑	

Conclusion:

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The six products tested will be used to clean supplied parts in a heated vapor degreasing system.