CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2008
DateRun:	03/05/2008
Experimenters:	Jason Marshall
ClientType:	Aluminum Anodizing Job Shop
ProjectNumber:	Project #2
Substrates:	Aluminum
PartType:	Part
Contaminants:	Coatings
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Visual
Purpose:	To evaluate two products on supplied parts using extended immersion cleaning
Experimental Procedure:	The top two products, Shopmaster RC and SC Actisolv, from the previous trials were used at room temperature. One supplied dirty part coated with the Stan Chem Inc Red Stop Off (78-93-3, 108-88-3) was immersed in each solution and cleaned at 10-minute intervals until completely cleaned. Observations were made and estimated removal was recorded at each interval. Once clean, parts were rinsed in tap water for 15 seconds at 120 F and dried using compressed at room temperature for 30 seconds.
Results:	Both products did not completely remove the coating after soaking for 8 hours. However, the Shopmaster RC only had about 5% of the coating remaining, mostly in the external threading. The SC Actisolv was only moderately successful, removing about 75% of the coating. Observation and estimated percent removal are listed for each hour of cleaning in the table.

Immersion Cleaning				
Product	Shopmaster RC		SC Actisolv	
Time	Estimated % clean	Observations	Estimated % clean	Observations
1 hour	5	soft along bottom edge	2	thinning along bottom edge
		most remaining		most remaining
2 hour	30	very soft on bottom	10	soft along bottom edge
		thinning on inside		
3 hour	40	very soft on inside	25	very soft on bottom
				soft on inside
4 hour	60	easily wiped off	40	soft everywhere
5 hour	75		55	
6 hour	80	stuck in threads on outside	60	agitation would increase
		Mostly gone on inside		effectiveness
7 hour	85	Manual wiping would remove remaining coating	65	
8 hour	90		70	
9 hour	95	Still stuck in threads on outside	75	

Summary:

Substrates:	Aluminum
Contaminants:	Coatings

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Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Buckeye International	Shopmaster RC	100		☑	
Gemtek Products	SC Actisolv Safety Solvent	100		☐	

Conclusion: The Buckeye Shopmaster RH showed the most promise for removing the coating following the current practice of soaking parts for 8 hours. In addition, this product would most likely be the most successful when used with a swab for spot cleaning.