CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2011
DateRun:	07/24/2011
Experimenters:	Heidi Wilcox, Johnny Le, Mahima Tank
ClientType:	
ProjectNumber:	Project #1
Substrates:	Plastic
PartType:	Coupon
Contaminants:	Resins/Rosins
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Scrape Test, Visual
Purpose:	To evaluate cleaners for their effectiveness in removing resin from plastic pallets or trays
Experimental Procedure:	Six cleaning products were chosen from the labs database, www.cleanersolutions.org to be used in the trial. Testing was done in two sets of three cleaners. Each set of three cleaners were tried at five minutes cleaner residence time to start. Any cleaner that seemed to need more time to clean or loosen the resin drops were then tried at a ten-minute residence time. Each product in both sets of cleaners was tested in duplicate. Using a cotton swab, the first three test products were applied to the resin and surrounding areas. After 5 minutes, the resin was attempted to be scraped off with a metal or plastic scraper. This process was repeated at a 10-minute interval also to allow the cleaner to sit on the resin longer. After 10 minutes the resin was attempted to be scraped off with a metal or plastic scraper. The second set of three products were used in the same cleaning procedure.
Results:	All six products loosened the drops to a varying degree. The time taken to soften the resin drops is less for the second set of products compared to the first set. Among the first set, product 1 and 2 required minimal effort to scrape off the resin compared to product 3. Among the second set, products 2 and 3 required minimal effort to scrape off the resin drop compared to product 1.

SETS	PRODUCT	TRIAL 1 (5 MIN)	RANK
		TRIAL 2 (10 min)	
		TRIAL3 (10 min)	
1	Bio Solv	Difficult to remove, try 10 min	1
		Minimal pressure required	
		Slight pressure required	
	SC Soyester	Difficult to remove, try 10 min	1
		Minimal pressure required	
		Slight pressure required	
	Soygold 2000	Difficult to remove, try 10 min	3
		More pressure required	
		More pressure required	
SETS	PRODUCT	TRIAL 1 (5 MIN)	RANK
		TRIAL 2 (5 min)	
2	BioTmax	Effective at 5 min, some pressure	3
		Effective at 5 minutes, some pressure	
	Solsafe 245	Effective at 5 minutes with minimal effort	1
		Effective at 5 minutes with minimal effort	
	EZ Solv	Effective at 5 minutes with minimal effort	1

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		Effective at 5 minutes with minimal effort	

Summary:

Substrates:	Plastic
Contaminants:	Resins/Rosins

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Phoenix Resins Inc	BioSolv	100	0.00	☑	
Gemtek Products	SC Soyester	100	0.00	☑	
AG Environmental Products	Soy Gold 2000	100	0.00	☐	
Bio Chem Systems	Bio T Max	100	0.00	☐	
Bio Chem Systems	Solsafe 245	100	0.00	☑	
Gemtek Products	SC EZ Solv Safety Solvent	100	0.00	☑	

Conclusion:

Among the first set Bio Solv and SC Soyester were top performers at ten minutes. Among the second set, Solsafe 245 and EZ Solv performed best at five minutes. Taking into account the time taken and effort required, it can be concluded that Solsafe 245 and EZ Solv worked best at five minutes