CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2004

DateRun: 05/02/2004

Experimenters: Jason Marshall

ClientType: Textile Mfr

ProjectNumber: Project #1

Substrates: Steel

PartType: Coupon

Contaminants: Buffing/Polishing Compounds

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: To identify an alternative to Kerosene for cleaning knitting equipment.

Experimental Procedure: Seven products were selected based on client request for products that can be used to clean-in-place at room temperatures. Each product was used at full strength in a 250 ml beaker. Twenty-one preweighed steel copper coupons were coated with the buffing material, Henkel Loctite Clover Silicone Carbide Grease Mix grit size (64742-52-5, 1592-21-2, 1333-86-4), using a hand held swab. Coupons were weighed a second time to determine the amount of soil added to each coupon. Three coupons were cleaned in each solution for 5 minutes using stir-bar agitation. After cleaning parts were dried using air-blow off. Coupons were then weighed a final time and efficiencies were calculated.

Results: Three products removed over 80% of the soil after five minutes of soaking. A few of the products were noted to have a residual cleaning fluid film remaining on the coupons after the air blow off. These products, Soy Gold 2000, 278 Super Solv and United 2002 Harvest Gold, were blotted dry in an attempt to remove the cleaning product but leave the uncleaned soil behind. The table below lists the amount of soil added, the amount remaining after cleaning and the efficiency for each coupon cleaned.

Cleaner	Coupon 1	Coupon 2	Coupon 3	Average
Soy Gold 2000	51.37	42.69	81.66	58.57
278 Super Solv	12.24	95.82	68.50	58.85
Custom Clean NCC 2778	82.84	86.25	79.42	82.83
Solsafe 245	94.04	96.13	79.21	89.79
DS 108	72.97	84.26	72.28	76.51
D Greeze 500 LO	82.03	90.84	94.71	89.19
United 2002 Harvest Gold	58.41	61.01	51.58	57.00

Summary:

Substrates:	Steel
Contaminants:	Buffing/Polishing Compounds

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
AG Environmental Products	Soy Gold 2000	100	58.57	☐	66.02 wipe
AW Chesterton	278 Super Solv	100	58.85	☐	72.16 wipe
BetzDearborne Laboratories Inc	Custom Clean N CC 2278	100	82.83	☑	
Bio Chem Systems	Solsafe 245	100	89.79	☑	
Dysol	DS 108 Wipe Solvent	100	76.51	☐	
Transene Company, Inc.	D Greeze 500 LO	100	89.19	☑	
United Laboratories International	United 2002 Harvest Gold	100	57.00	☐	73.26 wipe

Conclusion: All seven cleaners will be evaluated at removing the buffing compound in a manual application.