CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2003

DateRun: 09/15/2003

Experimenters: Jason Marshall

ClientType: Lab

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Cutting/Tapping Fluids

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric

Purpose: Laboratory evaluations of alternative cleaning products

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning.

Five products were used at full strength, heated to 120 F on a hot plate. Fifteen preweighed coupons were coated with Monroe Fluid Tech Cool Tool II cutting fluid and allowed to dry overnight and reweighed. Three coupons were cleaned in each solution for 5 minutes using stir-bar-agitation, rinsed in a tap water bath for 15 seconds at 120 F and dried using air blow off for 30 seconds at 68 F. Coupons were allowed to dry overnight and then reweighed a final time. Efficiencies were calculated.

Note: Bio T Foam Plus was sprayed onto coupons at room temperature and allowed to sit for 5 minutes. The cleaner was then rinsed.

Results: Four of the five products removed over 93% of the cutting fluid within five minutes of immersion cleaning. Only Bio T Foam plus removed under 85%.

Cleaner	Initial wt	Final wt	% Removed
278 Super Solv	0.7797	0.0120	98.46
	0.4984	0.0097	98.05
	0.5264	0.0070	98.67
Bio T Foam Plus	0.8789	0.1051	88.04
	0.1126	0.0234	79.22
	0.5249	0.0860	83.62
Ecobrite AK	0.2364	0.0125	94.71
	1.4922	0.0144	99.03
	0.8249	0.0166	97.99
Rip Tide	0.8920	0.0574	92.91
	0.5799	0.0496	91.45
	0.8733	0.0467	94.65
EZ Solv	0.6229	0.0428	93.13
	1.0819	0.0352	96.75
	1.1213	0.0516	95.40

Summary:

Substrates:	Stainless Steel
Contaminants:	Cutting/Tapping Fluids

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
AW Chesterton	278 Super Solv	100	98.39	☑	
Bio Chem Systems	Bio T Foam Plus	100	83.62	☐	
Eastern Color and Chemical Company	Ecobrite Cleaner AK	100	97.24	☑	
EcoLink	Rip Tide	100	93.00	☑	
Gemtek Products	SC EZ Solv Safety Solvent	100	95.09	☑	

Conclusion: Five products were successful in removing cutting fluid.