CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2005

DateRun: 09/21/2005

Experimenters: Jason Marshall

ClientType: Metal Finishing

ProjectNumber: Project #1

Substrates: Brass

PartType: Part

Contaminants: Buffing/Polishing Compounds

Cleaning Methods: Ultrasonics

Analytical Methods: Photography, Visual

Purpose: To evaluate aqueous products on supplied parts using ultrasonic cleaning.

Experimental Procedure: Three cleaners were selected after several trials to test chemistries on the buffing compounds. The previous trials were done using heated and room temperature immersion cleaning.

The three cleaners were used at 5% diluted with DI water and heated to 130 F 600 ml beakers. One part was used for each cleaner. The parts were supplied soiled by the client and included smooth rectangular parts. The parts were soiled with buffing compound from the vendor and pictures were taken of each lot before and after cleaning.

Each cleaner was suspended in a Crest Ultrasonic 40 kHz tank and degassed for 5 minutes. The parts were suspended from wire into the beaker and cleaned for 5 minutes. The parts were cleaned for five minutes followed by a 15 second rinse in tap water heated to 120 F and then dried with air blow off for 30 seconds at room temperature. After the first 5 minute cycle, observations were made and recorded. The parts were then cleaned for another 5 minutes.

Results: The MC 132 was the most effective cleaner at the 5 minute mark. After 10 minutes, the Texolite 1740 XL cleaned the parts nearly as well as the MC 132. The Formula 815 GD did not remove all of the buffing compound residue after 10 minutes. Observations and rankings are listed in the table below.

Cleaner	Observations	Rank
Formula 815 GD	Not clean after 5 minutes	3
	Some buffing compound remaining after 10 min	
MC 132	Very clean at 5 minutes	1
	Clean at 10 minutes	
Texolite 1740 XL	Not clean after 5 minutes	2
	Clean at 10 minutes	

Summary:

Substrates:	Brass				
Contaminants:	Buffing/Polishing Compounds				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Brulin Corporation	Formula 815 GD	5	0.00	☐	
Matchless Metal Polish Company	MC 132	5	0.00	☑	
Texo Corporation	Texolite 1734 XL	5	0.00	☑	

Conclusion: Two products were effective at removing the buffing compound after 10 minutes of cleaning. One of the two, MC 132, worked very well after the initial 5 minutes of cleaning.