CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008

DateRun: 03/23/2008

Experimenters: Jason Marshall, Heidi Wilcox

ClientType: Electro-Optical Devices

ProjectNumber: Project #1

Substrates: Liquid

PartType: Coupon

Contaminants: Solvent

Cleaning Methods:

Analytical Methods: Smell

Purpose: To evaluate selected products for odor comparison to current product

Experimental Procedure: The eight originally selected products were compared with the current product, IPA for odor levels. Each container of product was opened and wafted to determine the relative level of odor associated with the product. The products were ranked from worst to best by two members of the lab staff. The average ranking of the two were determined and reported. A normalized final ranking was made.

Results: Many of the selected alternatives to IPA were found to have less objectionable odor based on the two-person panel. The table lists the general observational odor, the product rankings from both lab staff members, the average odor rank and the normalized ranking.

In the table, Worst = 9 and Best = 1

Product	Observation	Rank 1	Rank 2	Ave Rank	Normalized Rank
Bio T Max	strong odor	9	9	9	9
Solsafe 245	medium odor	7	7	7	7
Shopmaster RC	strong odor	8	5	6.5	6
SC Actisolv	low/no odor	4	2	3	2
Optisolv OP 7171	no odor	1	1	1	1
Ionox HC 2	low/no odor	5	6	5.5	5
DS 144	medium/ low odor	3	3	3	2
DS 800	no odor	2	4	3	2
IPA	medium odor	6	8	7	7

Summary:

Substrates:	Liquid				
Contaminants:	Solvent				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Bio Chem Systems	Bio T Max	100	0.00	☐	Odor Rank - 9/9
Bio Chem Systems	Solsafe 245	100	0.00	☐	Odor Rank - 7/9
Buckeye International	Shopmaster RC	100	0.00	☑	Odor Rank - 6/9
Gemtek Products	SC Actisolv Safety Solvent	100	0.00	☑	Odor Rank - 2/9
Kyzen Corporation	Optisolv OP7171	100	0.00	☑	Odor Rank - 1/9
Kyzen Corporation	Ionox HC 2	100	0.00	☑	Odor Rank - 5/9
Dysol	DS 144S Wipe Solvent	100	0.00	☑	Odor Rank - 2/9
Dysol	DS 800 Solvent	100	0.00	☑	Odor Rank - 2/9
Fisher Scientific	Isopropanol a459-4 70% VV (CAS: 67-63-0)	100	0.00	☐	Odor Rank - 7/9

Conclusion: The least objectionable products with the highest effectiveness will be selected to clean the supplied part in the next stage of testing. These products include SC Actisolv, Ionox HC 2, DS 144 and Shopmaster RC.