CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2003

DateRun: 02/24/2003

Experimenters: Jason Marshall

ClientType: Metal

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Buffing/Polishing Compounds, Oxides

Cleaning Methods: Manual Wipe

Analytical Methods:

Purpose: To identify products that can be used to remove oxidation from aluminum parts

Experimental Procedure: Using the laboratory's database of testing information, several searches were performed based on client input. The first series of testing was to identify products that could be used to clean oxides from aluminum. The second set was to list products that could be used for buffing compound cleaning from aluminum.

Results: The first table lists the products that have been tested at SSL for oxide cleaning. Even though they may have not been tested on aluminum, all are compatible with this substrate according to vendor information. Products have been assigned and Environmental Value based on the indicators used by the lab (VOC, Global Warming, Ozone Depletion, pH, HMIS/NFPA). The closer the value is to 50, the safer the product should be.

Table 1. Oxide Removal at SSL

Tested on Oxide Removal - All are compatible with Aluminum						
CompanyName	ProductName	ClassificationDescription	Environmental Value	Effective on Oxides	Overall Effective	Overall Ineffective
Buckeye International	Shopmaster LPH	Alkaline Aqueous	48	1	6	11
Valtech Corporation	Valtron SP 2700 KB	Acidic Aqueous	45	1	1	2
Simple Green	Lime Scale Remover	Acidic Aqueous	44	1	1	1
US Polychem Corporation	Polychem DEOX 007	Alkaline Aqueous	44	2	3	9
US Polychem Corporation	Polychem Ultra CR	Alkaline Aqueous	44	2	2	3
MacDermid	ND LF Supreme	Alkaline Aqueous	43	1	5	7
Mirachem Corporation	Mirachem 250	Acidic Aqueous	43	1	1	1

Vendor Suggested products

Oxide and compatible with Aluminum		
CompanyName	ProductName	Safety Value
Armex	Sodium Bicarbonate	49
Petroferm Inc	Bioact 50	48
Innovative Organics Inc	Amberclean 527 L	47
Calgon Corporation	Geo Guard 3015	
Finish Line Technologies Inc	Bio Degradable Degreaser	

SSL Tested

Buffing compound removal from Al						
CompanyName	ProductName	ClassificationDescription	Value	Effective on Buffing	Overall Effective	Overall Ineffective

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New Pig Corporation	New Pig Degreaser	Terpene-Semi-Aqueous	49	5	5	7
Hubbard Hall Inc	Aquasonic 201	Alkaline Aqueous	48	1	2	6
Innovative Organics Inc	Amberclean L 12	Alkaline Aqueous	48	3	10	5
Chemical Technologies	Green Thunder	Alkaline Aqueous	47	3	8	6
ITW Fluid Products Group	AccuClean	Alkaline Aqueous	47	3	8	6
Texo Corporation	Texolite 1734 XL	Alkaline Aqueous	47	1	9	7
Safe Science	Engine Degreaser	Terpene	45	4	14	12
Alconox Inc	Alcojet	Powder Detergent-Alkaline	44	2	8	12
Buckeye International	Shopmaster HP	Alkaline Aqueous	44	1	4	5
Alconox Inc	Detergent 8	Alkaline Aqueous	40	1	4	6

Table 4. Vendor Suggested Products for buffing compuond removal compatible with Aluminum

CompanyName	ProductName	Safety Value
Armex	Sodium Bicarbonate	49
Gemtek Products	SC Aircraft & Metal Cleaner	49
New Pig Corporation	New Pig Degreaser	49
Tarksol Inc	Tarksol HTF 40	49
Buckeye International	Shopmaster LPH	48
Hubbard Hall Inc	Aquasonic 201	48
Petroferm Inc	Bioact 50	48
Solvent Kleene Inc	D Greeze 1000	48
AG Environmental Products	Canola Gold CE110	47
AG Environmental Products	Soy Clear 1500	47
AG Environmental Products	Soy Gold 2000	47
Gemtek Products	SC 1000	47
Gemtek Products	SC Supersolve	47
Savogran	HD-34 Cleaner Degreaser	47
Texo Corporation	Texolite 1734 XL	47
US Polychem Corporation	Polychem 2000 P	47
Alconox Inc	Citranox	46
Heatbath Corporation	Alu-Kleen 36	46
Oakite Products	Inproclean 1300	46
Today & Beyond	Beyond 2007	46
Tomah Products	Tomadyne 102	46
US Polychem Corporation	Polyspray Jet 790 P	46
AG Environmental Products	Soy Gold 1000	45
AW Chesterton	KPC 820 N	45
Brulin Corporation	EXP 1400	45

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Buckeye International	Shopmaster	45
Heatbath Corporation	Power Wash Cleaner BCR	45
Magnaflux	Daraclean 235	45
Man Gill Chemical	Gillite 1156	45
Oakite Products	Inproclean 2300	45
Safe Science	Safe Science Engine Degreaser (Industrial)	45
Savogran	Dirtex Prepaint Cleaner	45
Sky Products Company Inc.	Cleaner #10	45
Tomah Products	Tomadyne Mix	45
US Polychem Corporation	Polychem A 2000 XS	45
US Polychem Corporation	Polyspray Jet 790 XS	45
Valtech Corporation	Valtron SP 2700 KB	45
Buckeye International	Shopmaster HP	44
Heatbath Corporation	MultiKleen LX 1573	44
Kleer Flo Company	Grease Off 2	44
United Laboratories	United 2002 Harvest Gold	44
US Polychem Corporation	Polychem DEOX 007	44
US Polychem Corporation	Polychem Ultra CR	44
Finger Lakes Chemicals	Safer Stuff	43
Magnaflux	Daraclean 212	43
PCI of America	Hurrisafe 9575	43
Solutia Inc	Santosol DME	43
Brulin Corporation	Formula 815 GD	42
By*Pas & Star Cleaning Products	Star Cleaning Miracle # 50	42
Oakite Products	Inproclean 3800	42
Pentone Corporation	Citrikleen XPC	42
PCI of America	Hurrisafe 9450	41
Permatex Industrial Corporation	Natural Blue	41
AW Chesterton	217 Pressure wash	39
Bio Chem Systems	Bio T 200 A	39
Bio Chem Systems	Green Stuff (6325)	39
By*Pas & Star Cleaning Products	By*Pas #1500	39
Oakite Products	Inproclean 4000 T	39
Tomah Products	Tomadyne 101 LF	39
US Polychem Corporation	Polychem PW 147	39
Vertec BioSolvents	VertecBio Gold 2	39

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Du Pont	DBE	38
Magnaflux	Daraclean 200	38
Matchless Metal Polish Company	MC 132	38
Matchless Metal Polish Company	MC 580	38
Today & Beyond	Beyond 2001	38
Today & Beyond	Beyond 2002	38
Today & Beyond	Beyond 2003	38
Today & Beyond	Beyond 2005	38
	Trichloroethylene	37
AW Chesterton	278 Super Solv	37
Bio Chem Systems	Bio T 300 B	37
Bio Chem Systems	Bio T Max	37
Bio Chem Systems	Bio T Parts Washer NR	37
Bio Chem Systems	Solsafe 245	37
Dynamold Solvents Inc	DS 104	37
Dynamold Solvents Inc	DS 108	37
Inland Technologies Inc	Citrasafe	37
MacDermid	ND 17	37
Magnaflux	Daraclean 282 GF	37
Today & Beyond	Beyond 2004	37
US Polychem Corporation	Hydropurge 36	37
Today & Beyond	Beyond 2006	36
Man Gill Chemical	Gillite 0650 Cl	35
Bio Chem Systems	Bio T Foam Plus	34
Calgon Corporation	SMS 206 K	34
Magnaflux	Daraclean 282	34
Oakite Products	Okemclean	32

Summary:

Conclusion: Testing varies from case to case. For product specific please contact SSL. If you would like more information on any of the listed products or would like additional searches, contact the lab.