CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002

DateRun: 05/07/2002

Experimenters: Jason Marshall

ClientType: Coatings Manufacturer

ProjectNumber: Project #1

Substrates: Alloys, Aluminum, Copper, Stainless Steel, Steel, Titanium

PartType: Coupon

Contaminants: Cutting/Tapping Fluids, Lubricating/Lapping Oils, Fingerprints, Metal fines, Oil

Cleaning Methods:

Analytical Methods:

Purpose: Run a search to help our company find an aqueous cleaning system

Experimental Procedure: The materials we are cleaning are: Aluminum, Steel, Stainless Steel, Beryllium Copper, Titanium. We currently use a vapor degreaser using Trichloroethylene. The size of the parts vary being the largest is about 10 feet long x about 5 feet wide and thickness vary, but are no more than 4 inches. We also deal with many small parts and different size lots. We clean these parts in preparation for Ion Vapor Deposition (IVD). It's a process where Aluminum wire is vaporized in a vacuum chamber.

The contaminants we are cleaning also vary from lubricants, oils, dust, fingerprints, occasionally metal chips. Between vapor degreasing and IVD, we grit blast with #220 aluminum grit as a surface preparation. Is there a product that can clean & prepare the surface? The research that I have done so far, indicates that alkaline cleaners may do this, but I haven't found anything as to the effects on all the materials I have listed. What I have also learned is that an immulsion system is the best way to go for the size of our largest parts, but what about our smaller parts? Is immersion just as effective on smaller parts?

Using SSL's Simple Solutions database, two lists of products were generated based on client input. The first list contains products that have been evaluated in the lab for lubricants, oils, metal fines and dust from steel, stainless steel, copper titanium and aluminum. The equipment may not be the same as the client requested materials. The second list contains Vendor suggested products. The parameters were entered into the search. Products with higher numbers met more criteria.

Results:

Total Parameters	Company Name	Product Name	Classification
20	Fine Organic Corporation	FO 2085 M	Alkaline Aqueous
15	Baum's Castorine Co Inc	Protecto Clean 148	Alkaline Aqueous
15	Chemical Technologies	Green Thunder	Alkaline Aqueous
15	Church & Dwight	Armaklean M Aero	Alkaline Aqueous
15	Cleaning Systems	Release	Alkaline Aqueous
15	Hubbard Hall Inc	Aquasonic 201	Alkaline Aqueous
15	Innovative Organics Inc	Amber Clean SC 11	Neutral Aqueous
15	Innovative Organics Inc	Amberclean 527 L	Alkaline Aqueous
15	SWR Corp	SWR One	Alkaline Aqueous
10	Abatement Technology	Bio Might 100	Alkaline Aqueous
10	Ausimont USA Inc	Perfluorosolv PFS 1	HCFC
10	Bio Chem Systems	Bio T Foam Plus	Terpene
10	Brulin Corporation	Natural Sol 100	Alkaline Aqueous
10	Bush Boake Allen Inc	BBA Solvent K312	Terpene
10			

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	Calgon Corporation	Geo Guard 2215	Alkaline Aqueous
10	Calgon Corporation	Geo Guard 3015	Acidic Aqueous
10	Calgon Corporation	Geo Guard 4017	Alkaline Aqueous
10	Carroll Company	Blue Gold Industrial Cleaner	Alkaline Aqueous
10	Chem Free Corp	Heavy Grease Formula SW 2	Enzymatic/ Microbial
10	Chem Free Corp	Ozzy Juice SW 3	Enzymatic/ Microbial
10	Chemtronics	Super Bio Wash	Semi-Aqueous
10	Church & Dwight	Armakleen M Auto	Alkaline Aqueous
10	CRC Industries	Complex Blue	Semi-Aqueous
10	Delta Omega Technologies Ltd	Attar D(R3)	Alkaline Aqueous
10	Delta Omega Technologies Ltd	DOT 111/113	Alkaline Aqueous
10	Ecolink	Universal Steam Cleaner	Alkaline Aqueous
10	Ecolink	Vortex	Semi-Aqueous
10	Florida Chemical Co	D-Limonene	Terpene
10	General Chemical Corporation	Aluminex 5761	Caustic
10	General Chemical Corporation	Aluminex 5834	Alkaline Aqueous
10	Hubbard Hall Inc	Ram Charger	Alkaline Aqueous
10	Inland Technologies Inc	Citrasafe	Terpene
10	Innovative Organics Inc	Amberclean L 12	Alkaline Aqueous
10	ITW Fluid Products Group	Accu-Clean	Alkaline Aqueous
10	Kleer Flo Company	Grease Off 2	Alkaline Aqueous
10	LPS Laboratories	LPS Precision Clean	Alkaline Aqueous
10	Magnaflux	Zyglo Emulsifier ZR 10B	Neutral Aqueous
10	Magnum Research	Aluminum Aerowash	Alkaline Aqueous
10	Man Gill Chemical	Gillite 0650 Cl	Alkaline Aqueous
10	Man Gill Chemical	Gillite 1156	Powder Detergent
10	Master Chemical Corp	Trim Rinse 100	Alkaline Aqueous
10	Mirachem Corporation	Mirachem 500	Alkaline Aqueous
10		NAB 9000	

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	North Atlantic Bio Industries		Neutral Aqueous
10	Permatex Industrial Corporation	Natural Blue	Alkaline Aqueous
10	Pride International Inc	Citrisolv Plus	Semi-Aqueous
10	Quaker Chemical	Formula 625 XL	Alkaline Aqueous
10	Safe CleanUp	Super Neutral	Enzymatic/ Microbial
10	Tarksol, Inc.	Tarksol HTF-10 B	Terpene
10	Tarksol, Inc.	Tarksol HTF-50	Semi-Aqueous
10	Tarksol, Inc.	Tarksol HTF-60	Terpene
10	Tech Spray	Concentrated Aqueous Defluxer	Caustic
10	Texo Corporation	Texolite 1734 XL	Alkaline Aqueous
10	Twin Rivers Corp	Methyl Ester 1618	Ester
10	U.S. Polychem Corp.	87 RB	Hydrocarbon
10	Valtech Corporation	Valtron SP 2275	Neutral Aqueous
10	W.R. Grace & Co.	Daraclean 211	Alkaline Aqueous
10	W.R. Grace & Co.	Daraclean 232	Alkaline Aqueous
10	Warren Chemical Co	Sea Wash 700 Old	Neutral Aqueous
10	Warren Chemical Co	Sea Wash 8	Neutral Aqueous
10	Warren Chemical Co	Sea Wash 8 New	Neutral Aqueous
8	AG Environmental Products	Soy Gold 1000	Organic
8	AG Environmental Products	Soy Gold 2000	Organic
8	AGA Chemical	AK 225	HCFC
8	AJ Associates	Gardoclean A5503	Alkaline Aqueous
8	Albemarle Corp	Abzol Cleaners	Organic
8	Alconox, Inc.	Alconox	Powder Detergent
8	Alconox, Inc.	Liquinox	Alkaline Aqueous
8	AW Chesterton	181 Low Alkaline Cleaner	Alkaline Aqueous
8	AW Chesterton	217 Pressure wash	Alkaline Aqueous
8	AW Chesterton	278 Super Solv	Petroleum Distillate
8	AW Chesterton	KPC 820 N	Alkaline Aqueous
8	Baum's Castorine Co Inc	EZE Oil-Grease Cleaner	Alkaline Aqueous

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8	Better Engineering	NAT-50 MS	Alkaline Aqueous
8	Better Engineering	NAT-50 MS	Powder Detergent
8	Bio Chem Systems	Bio T 200 A	Terpene
8	Bio Chem Systems	Bio T 300 B	Semi-Aqueous
8	Bio Chem Systems	Bio T 300 B	Terpene
8	Bio Chem Systems	Bio T Max	Semi-Aqueous
8	Bio Chem Systems	Bio T Max	Terpene
8	Bio Chem Systems	Bio T Parts Washer NR	Terpene
8	Bio Chem Systems	Bio T V-50	Terpene
8	Bio Chem Systems	Green Stuff (6325)	Alkaline Aqueous
8	Bio Chem Systems	Neutral Green (8020)	Alkaline Aqueous
8	Bio Chem Systems	SOLSAFE 245	Petroleum Distillate
8	Bo Chem Co	T 110	Alkaline Aqueous
8	Brulin Corporation	Brulin 1696 PNC	Neutral Aqueous
8	Brulin Corporation	Brulin 1990 GD	Alkaline Aqueous
8	Brulin Corporation	EXP 1400	Alkaline Aqueous
8	Brulin Corporation	Formula 815 GD	Alkaline Aqueous
8	Buckeye International	Immersion Cleaner	Alkaline Aqueous
8	Buckeye International	Shopmaster	Alkaline Aqueous
8	Buckeye International	Shopmaster HP	Alkaline Aqueous
8	Buckeye International	Shopmaster LPH	Alkaline Aqueous
8	CAE Cleaning Technologies	Evercycle 2000	Neutral Aqueous
8	Calgon Corporation	AK 6215	Alkaline Aqueous
8	Calgon Corporation	GP Xtra	Alkaline Aqueous
8	Chem Tech	CT 1 Multipurpose Cleaner	Alkaline Aqueous
8	Chemstation	Greenstuff II	Alkaline Aqueous
8	Church & Dwight	Armaklean E 2001	Alkaline Aqueous
8	Church & Dwight	Armaklean E 2002	Alkaline Aqueous
8	Cleansafe Solutions	Solution 2000	Alkaline Aqueous
8	Dow Chemical Company	PnB Glycol Ether	Alcohol
8	Dow Chemical Company	XUS 40570 Development Solvent	Alcohol
8	Dow Chemical Company		Alcohol

CLEANING LABORATORY EVALUATION SUMMARY

		XUS 40571 Development Solvent	
8	Dow Chemical Company	XUS 40579 Development Solvent	Alcohol
8	Dynamold Solvents, Inc.	DS-104	Petroleum Distillate
8	Dynamold Solvents, Inc.	DS-108	Petroleum Distillate
8	Dynamold Solvents, Inc.	DS-801	Alkaline Aqueous
8	Ecolink	Heavy Weight Non Butyl Detergent	Alkaline Aqueous
8	EMKAY Chemical Co	Safety Wash	Alkaline Aqueous
8	EMKAY Chemical Co	Safety Wash Clear	Alkaline Aqueous
8	EMKAY Chemical Co	Safety Wash CRC	Alkaline Aqueous
8	Ensolve Biosystems, Inc.	Grease Feast Plus	Enzymatic/ Microbial
8	Ensolve Biosystems, Inc.	Grease Feast Plus	Neutral Aqueous
8	Environmental Services	TASC	Alkaline Aqueous
8	Environmental Technology	RB Degreaser Cleaner	Alkaline Aqueous
8	Equinox	Natural Solutions	Terpene
8	Gemtek Products	SC 1000	Alkaline Aqueous
8	Gemtek Products	SC Aircraft & Metal Cleaner	Alkaline Aqueous
8	Gemtek Products	SC Supersolve	Organic
8	Heatbath Corporation	Power Wash Cleaner BCR	Alkaline Aqueous
8	Hotsy Cleaning Systems	Hotsy Detergents Tub & Pressure Wash	Alkaline Aqueous
8	Hotsy Cleaning Systems	Tubmate All Purpose	Alkaline Aqueous
8	Hubbard Hall Inc	Aquaease PL 110	Caustic
8	Hurri Kleen	Hot Immersion Degreaser	Alkaline Aqueous
8	Hurri Kleen	Parts Washer Degreaser	Alkaline Aqueous
8	International Products Corp	LF 2100	Alkaline Aqueous
8	International Products Corp	Surface Cleanse 930	Neutral Aqueous
8	JDI, Inc.	Mirachem 500 RTU	Alkaline Aqueous
8	Kyzen Corporation	Metalnox 6304	Alkaline Aqueous
8	MacDermid	ND 17	

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			Alkaline Aqueous
8	MacDermid	ND Supreme	Alkaline Aqueous
8	Mirachem Corporation	Mirachem 250	Acidic Aqueous
8	New Pig Corporation	New Pig Degreaser	Semi-Aqueous
8	New Pig Corporation	New Pig Degreaser	Terpene
8	Oakite Products	Citradet	Semi-Aqueous
8	Oakite Products	Fisan Versaclean	Alkaline Aqueous
8	Oakite Products	Inproclean 2000	Alkaline Aqueous
8	Oakite Products	Inproclean 2300	Alkaline Aqueous
8	Oakite Products	Inproclean 3800	Alkaline Aqueous
8	Oakite Products	Inproclean 4000 T	Organic
8	Oakite Products	Inproclean 4000 T	Terpene
8	Oakite Products	Oakite 77	Powder Detergent
8	Oakite Products	Okemclean	Caustic
8	PCI of America	Hurrisafe 9065 Cast Iron Degreaser	Alkaline Aqueous
8	Petroferm Inc	Bioact 50	Neutral Aqueous
8	S & S Industrial Services	SPRAY CLEAN 400 T	Alkaline Aqueous
8	Safe Science	Safe Science Concrete/ Graffiti (Industrial)	Alkaline Aqueous
8	Safety Kleen Corporation	Premium Gold	Petroleum Distillate
8	Savogran	Dirtex Prepaint Cleaner	Alkaline Aqueous
8	Savogran	HD-34 Cleaner Degreaser	Semi-Aqueous
8	Savogran	Safety-Solve	Organic
8	Sky Products Co., Inc.	Cleaner #10	Alkaline Aqueous
8	Solvent Kleene, Inc.	D-Greeze 500 LO	Organic
8	System One Technologies	QSOL-100	Petroleum Distillate
8	System One Technologies	QSOL-110	Petroleum Distillate
8	System One Technologies	QSOL-200	Organic
8	System One Technologies	QSOL-220	Organic
8	Tarksol, Inc.	Tarksol HTF-40	Alcohol
8	Tarksol, Inc.	Tarksol HTF-40	Neutral Aqueous
8	Tarksol, Inc.	Tarksol HTF-40	Organic

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8	Tarksol, Inc.	Tarksol NPB	Organic
8	Tarksol, Inc.	Tarksol Oilsolv	Alcohol
8	Tarksol, Inc.	Tarksol Oilsolv	Neutral Aqueous
8	Tarksol, Inc.	Tarksol Oilsolv	Organic
8	Tarksol, Inc.	Tarksol Powergreen	Alcohol
8	Tarksol, Inc.	Tarksol Powergreen	Alkaline Aqueous
8	Tarksol, Inc.	Tarksol Powergreen	Organic
8	Today & Beyond	Beyond-2001	Alkaline Aqueous
8	Today & Beyond	Beyond-2002	Alkaline Aqueous
8	Today & Beyond	Beyond-2003	Alkaline Aqueous
8	Today & Beyond	Beyond-2004	Alkaline Aqueous
8	Today & Beyond	Beyond-2005	Alkaline Aqueous
8	Today & Beyond	Beyond-2006	Alkaline Aqueous
8	Today & Beyond	Beyond-2007	Alcohol
8	Tomah Products	Tomadyne 101 LF	Neutral Aqueous
8	Tomah Products	Tomadyne Mix	Neutral Aqueous
8	Turco Products Inc	Liquid Spray LT	Caustic
8	U.S. Polychem Corp.	Hydropurge 36	Alkaline Aqueous
8	U.S. Polychem Corp.	Polychem 2000 P	Alkaline Aqueous
8	U.S. Polychem Corp.	Polychem A 2000 XS	Alkaline Aqueous
8	U.S. Polychem Corp.	Polychem Acra Strip 600	Semi-Aqueous
8	U.S. Polychem Corp.	Polychem C-800	Neutral Aqueous
8	U.S. Polychem Corp.	Polychem DE-144	Petroleum Distillate
8	U.S. Polychem Corp.	Polychem DEOX 007	Alkaline Aqueous
8	U.S. Polychem Corp.	Polychem Hydropurge 21	Alkaline Aqueous
8	U.S. Polychem Corp.	Polychem Hydropurge 36 XS	Alkaline Aqueous
8	U.S. Polychem Corp.	Polychem Hydropurge XS-790	Alkaline Aqueous
8	U.S. Polychem Corp.	Polychem Poly Tect 7BF	Petroleum Distillate
8	U.S. Polychem Corp.	Polychem QS-85 LO	Petroleum Distillate
8	U.S. Polychem Corp.	Polychem QS-85 LO	Terpene
8	U.S. Polychem Corp.	Polychem RCC-25	Petroleum Distillate
8			Terpene

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	U.S. Polychem Corp.	Polychem RCC-25	
8	U.S. Polychem Corp.	Polyspray Jet 790 P	Alkaline Aqueous
8	U.S. Polychem Corp.	Polyspray Jet 790 XS	Alkaline Aqueous
8	U.S. Polychem Corp.	Polyspray Jet ST-21	Alkaline Aqueous
8	Universal Photonics	Uni Clear II	Petroleum Distillate
8	W.R. Grace & Co.	Daraclean 121	Alkaline Aqueous
8	W.R. Grace & Co.	Daraclean 200	Alkaline Aqueous
8	W.R. Grace & Co.	Daraclean 212	Neutral Aqueous
8	W.R. Grace & Co.	Daraclean 235	Neutral Aqueous
8	W.R. Grace & Co.	Daraclean 236	Neutral Aqueous
8	W.R. Grace & Co.	Daraclean 238	Alkaline Aqueous
8	W.R. Grace & Co.	Daraclean 257	Alkaline Aqueous
8	W.R. Grace & Co.	Daraclean 282	Alkaline Aqueous
8	W.R. Grace & Co.	Daraclean 282 GF	Alkaline Aqueous
8	Warren Chemical Co	Sea Wash 77	Neutral Aqueous
8	Warren Chemical Co	Sea Wash Neutral	Neutral Aqueous
8	Watson Technical Associates	Watson Formula 7300	Alkaline Aqueous
8	Watson Technical Associates	Watson Formula 9000	Alkaline Aqueous
8	Watson Technical Associates	Watson Formula 9001-CP	Alkaline Aqueous
8	ZEP Manufacturing Co	Dyna 143	Hydrocarbon
6	AJ Associates	Dynadet	Caustic
6	Alconox, Inc.	Citranox	Acidic Aqueous
6	Amax Corp	Safety First	Semi-Aqueous
6	Ashland Chemical	Solvent 6733	Caustic
6	Branson	GP	Alkaline Aqueous
6	Brulin Corporation	815 QR	Alkaline Aqueous
6	By*Pas & Star Cleaning Products	By*Pas #1500	Alkaline Aqueous
6	By*Pas & Star Cleaning Products	Star Cleaning Miracle # 50	Alkaline Aqueous
6	Calgon Corporation	Geo Guard 2000	Alkaline Aqueous
6	Calgon Corporation	Geo Guard 5210	Semi-Aqueous
6		RT 806	

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	Calgon Corporation		Alkaline Aqueous
6	Chemstation	Green Stuff Neutral	Neutral Aqueous
6	CSA Inc	Bio Safe 1025	Hydrocarbon
6	DA Stuart Co	Dasco Kleen 3250	Alkaline Aqueous
6	Diversey Corp	Jettacin	Semi-Aqueous
6	Diversey Corp	Jettacin	Terpene
6	Eastern Color and Chemical Co	Ecobrite Cleaner AK	Alkaline Aqueous
6	Finger Lakes Chemicals	37257	Terpene
6	Finger Lakes Chemicals	2-22 d-Limonene	Alkaline Aqueous
6	Finger Lakes Chemicals	3-D Degeaser	Terpene
6	Heatbath Corporation	Multi-Kleen 1568	Alkaline Aqueous
6	Heatbath Corporation	Multi-Kleen LX 1573	Alkaline Aqueous
6	Heatbath Corporation	Uni Kleen 10	Powder Detergent
6	Houghton International	Certa Kleen 5387	Alkaline Aqueous
6	Inland Technologies Inc	Teksol	Terpene
6	International Products Corp	Micro	Alkaline Aqueous
6	International Products Corp	Micro 90	Alkaline Aqueous
6	MacDermid	ND LF Supreme	Alkaline Aqueous
6	Man Gill Chemical	Gillite 160 X	Alkaline Aqueous
6	Matchless Metal Polish Company	MC 132	Alkaline Aqueous
6	National Diagnostic	Histo Clear	Terpene
6	National Diagnostic	Opti Clear	Terpene
6	Oakite Products	Inproclean 2500	Powder Detergent
6	Oakite Products	Oakite Low Heat Cleaner 1	Powder Detergent
6	Safe Science	Safe Science All Purpose (Industrial)	Alkaline Aqueous
6	Safe Science	Safe Science Engine Degreaser (Industrial)	Terpene
6	Simple Green	All Purpose Cleaner/ Degreaser	Alkaline Aqueous
6	Simple Green	Crystal Simple Green Industrial Cleaner	Alkaline Aqueous
6	Simple Green	Simple GreenD	Alkaline Aqueous

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6	Solvent Kleene, Inc.	D-Greeze GL 46	Alkaline Aqueous
6	Solvent Kleene, Inc.	D-Greeze GL 55	Alkaline Aqueous
6	T & D Finishing Co	TD 110	Alkaline Aqueous
6	Tarksol, Inc.	Tarksol Aqua Kleen Citric	Acidic Aqueous
6	Tarksol, Inc.	Tarksol Aqua Kleen Citric	Alcohol
6	Tarksol, Inc.	Tarksol Aqua Kleen Citric	Organic
6	Turco Products Inc	Turco 5948 DPM	Alkaline Aqueous
6	U.S. Polychem Corp.	Polyspray Jet 790 C	Caustic
6	U.S. Polychem Corp.	PXP	Semi-Aqueous
6	United Laboratories	United 450 All Clear	Alkaline Aqueous
6	United Laboratories	United 450 All Clear	Enzymatic/ Microbial
6	Valtech Corporation	Valtron DP 97031	Neutral Aqueous
6	Valtech Corporation	Valtron SP 2250-2LF	Alkaline Aqueous
6	Valtech Corporation	Valtron SP 2610	Neutral Aqueous
6	W.R. Grace & Co.	Daraclean 203	Caustic
6	W.R. Grace & Co.	Daraclean 283	Alkaline Aqueous
6	W.R. Grace & Co.	Daraclean 294 xx	Semi-Aqueous
6	W.R. Grace & Co.	Daraguard 412	Organic
6	Warren Chemical Co	Sea Wash 700 New	Neutral Aqueous
6	Watson Technical Associates	Low Foam Washer Detergent	Alkaline Aqueous
6	Watson Technical Associates	Watson Formula 7001-CP	Alkaline Aqueous
5	Chem Free Corp	Ozzy Juice SW 1	Enzymatic/ Microbial
4	AJ Associates	Gardoclean A5502	Alkaline Aqueous
4	Alconox, Inc.	Alcojet	Alkaline Aqueous
4	Alconox, Inc.	Alcojet	Powder Detergent
4	Alconox, Inc.	Alcotabs	Neutral Aqueous
4	Alconox, Inc.	Detergent 8	Alkaline Aqueous
4	Alconox, Inc.	Luminox	Neutral Aqueous
4	Alconox, Inc.	Terg-A-Zyme	Enzymatic/ Microbial
4	Ardrox	6333	Caustic
4	AW Chesterton	218 HDP	Alkaline Aqueous
4	AW Chesterton	803 Industrial &	Alkaline Aqueous

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		Marine Solvent II	
4	BCS Company	251 SR	Alkaline Aqueous
4	BCS Company	Ultra Blue 100	Alkaline Aqueous
4	Betz Laboratories Inc	Custom Clean N CC 2278	Petroleum Distillate
4	Broco Products Inc.	Broco OC-HDD	Powder Detergent
4	Buckeye International	Shopmaster FF	Alkaline Aqueous
4	Calgon Corporation	SMS 206 K	Alkaline Aqueous
4	Chrisal USA, Inc.	Super CMF 240	Alkaline Aqueous
4	Diversey	Dusqueeze	Semi-Aqueous
4	Drummond American	Sovereign	Alkaline Aqueous
4	Ecolink	Positron	Organic
4	Ecolink	Rip-Tide	Terpene
4	Enviro-Safe Services, Inc.	Aluminum De-Oxidizer 662	Neutral Aqueous
4	Enviro-Safe Services, Inc.	Neutral Rust Remover 232	Neutral Aqueous
4	EPI	E Kleen 196 A	Caustic
4	Finger Lakes Chemicals	ID/4R	Terpene
4	Hazwell International	Biosolve	Neutral Aqueous
4	Houghton International	MTC 53	Alkaline Aqueous
4	Master Chemical Corp	Trim Rinse 200	Alkaline Aqueous
4	Oakite Products	Inproclean 61 B	Powder Detergent
4	OCS System	# NFH2002	Alkaline Aqueous
4	Purac America, Inc.	Purasolv Els	Organic
4	Solvent Kleene, Inc.	D-Greeze 1000	Petroleum Distillate
4	Soy Envrinonmental Products, Inc.	Soy Clean	Organic
4	Tarksol, Inc.	Tarksol HTF-7	Alcohol
4	Tarksol, Inc.	Tarksol HTF-7	Alkaline Aqueous
4	Tarksol, Inc.	Tarksol HTF-7	Organic
4	Texo Corporation	Texo Cleaner 127	Alkaline Aqueous
4	Today & Beyond	Beyond-2009	Organic
4	Tomah Products	Tomadyne 102	Neutral Aqueous
4	Tower Products, Inc	Tower 270 Cleaner Concentrate	Alkaline Aqueous
4	U.S. Polychem Corp.	Polychem PW-147	Alkaline Aqueous
4	U.S. Polychem Corp.	Polychem Ultra-CR	Alkaline Aqueous

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4	U.S. Polychem Corp.	Product 69 MC	Alcohol
4	United Laboratories	United 2002 Harvest Gold	Semi-Aqueous
4	Valtech Corporation	Valtron SP 2500	Alkaline Aqueous
4	Valtech Corporation	Valtron SP 2700-KB	Acidic Aqueous
4	Warren Chemical Co	Sea Wash Cleaner	Alkaline Aqueous
4	Watson Technical Associates	Drain Away	Alkaline Aqueous
4	Westford Chemical Corporation	Biosolve	Neutral Aqueous
3	Broco Products Inc.	The Stuff for Steel	Acidic Aqueous
3	Drummond American	Clout	Semi-Aqueous
3	Drummond American	Keynote	Neutral Aqueous
3	Enviro-Safe Services, Inc.	Yellow Metal De-Tarnish 170	Neutral Aqueous
3	Finger Lakes Chemicals	Resineater	Terpene
2	Broco Products Inc.	The Stuff for Aluminum	Acidic Aqueous
2	Diversey	Twist	Terpene
2	Heatbath Corporation	Alu-Kleen 36	Acidic Aqueous
2	Jet Lube Inc.	Jet Lube 5000	Alkaline Aqueous
2	Mix	NaoH, Rochester Midland Split, Chemex 110	Caustic
2	Safety Kleen Corporation	Safety Kleen Aqueous Cleaner	Alkaline Aqueous
2	Valtech Corporation	Valtron DP 98023	Caustic
2	Valtech Corporation	Valtron SP 2200	Alkaline Aqueous
2	Valtech Corporation	Valtron SP 2270	Alkaline Aqueous
2	Valtech Corporation	Valtron SP 2600	Neutral Aqueous
2	Watson Technical Associates	Formula 7100	Alkaline Aqueous
2	Watson Technical Associates	Watson Formula 7000	Alkaline Aqueous
1	Alconox, Inc.	Det-O-Jet	Alkaline Aqueous

Summary:

Conclusion: Immersion cleaning will work on the smaller parts as long as there are not may small blind holes. For these complex shaped parts, ultrasonic energy in addition to the cleaning chemistries will provide better cleaning.
It may be possible to clean your large parts using a conveyrized spray wash system (kind of like a automatic car wash). As long as you have the space for it, you may use less cleaning chemistry.

Cleaning projects vary from case-to-case. To obtain more detailed information about any of the products listed, contact the lab at (978)934-3133.