CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	1999
DateRun:	06/22/1999
Experimenters:	Jason Marshall
ClientType:	Ultrasonic Device Mfr
ProjectNumber:	Project #1
Substrates:	Aluminum, Brass, Carbon Steel, Copper, Galvinized Steel, Nickel, Stainless Steel, Steel, Tin, Titanium
PartType:	Coupon
Contaminants:	
Cleaning Methods:	Ultrasonics
Analytical Methods:	
Purpose:	Informatino request for ultrsonic cleaning
Experimental Procedure:	QUESTION ASKED: Would like a listing of cleaners that can be used in ultrasonic cleaning for many substrates and contaminants.
Results:	RESPONSE/ANSWER: The Massachusetts Toxics Use Reduction Institute (TURI) has made the results of the tests conducted at the Institute's Surface Cleaning Laboratory (SCL) into a searchable database/ spreadsheet format. This should make alternative cleaner selection faster and easier. Here are the results of your query, based on the information supplied: Table 1 lists the successful cleaning trials conducted using ultrasonic cleaning.

Table 1. Effective Cleaners in Ultrasonic Cleaning

Cleaner Mfg	Product Name	Substrate	Contaminant
ALCONOX	ALCOJET	GLASS	OXIDES
ALCONOX	CITRANOX	GLASS	OXIDES
ARDROX	6333	CR STEEL	LUBRICANT
ARDROX	6333	CR STEEL	METAL
BRANSON	GP	METAL	OIL
BRANSON	GP	Molybdenum	OIL
BRANSON	GP	Molybdenum	OIL
BRANSON	GP	Molybdenum	OIL
BRANSON	GP	Molybdenum	OIL
BRANSON	GP	ALUMINA	OIL
BRANSON	GP	ALUMINA	OIL
BRANSON	GP	ALUMINA	OIL
BRANSON	GP	ALUMINA	OIL
BRANSON	GP	TITANIUM	OIL
BRANSON	GP	TITANIUM	OIL
BRANSON	GP	TITANIUM	OIL
BRANSON	GP	TITANIUM	OIL
BRANSON	GP	MACOR	OIL
BRANSON	GP	MACOR	OIL
BRANSON	GP	MACOR	OIL
BRANSON	GP	MACOR	OIL
BRULIN	63 G	AL	OIL
BRULIN	63 G	STEEL	OIL
BRULIN	815 GD	AL	CARBON
BRULIN	815 GD	AL	LUBRICANT
BRULIN	815 GD	AL	OIL
BRULIN	815 GD	AL	OIL
BRULIN	815 GD	STEEL	OIL
BRULIN	815 GD	MOLYBDENUM	OIL
BRULIN	815 GD	MOLYBDENUM	OIL
BRULIN	815 GD	MOLYBDENUM	OIL
BRULIN	815 GD	ALUMINA	OIL

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BRULIN	815 GD	ALUMINA	OIL
BRULIN	815 GD	ALUMINA	OIL
BRULIN	815 GD	TITANIUM	OIL
BRULIN	815 GD	TITANIUM	OIL
BRULIN	815 GD	TITANIUM	OIL
BRULIN	815 GD	MACOR	OIL
BRULIN	815 GD	MACOR	OIL
BRULIN	815 GD	MACOR	OIL
CALGON	AK 6215	CR STEEL	LUBRICANT
CALGON	AK 6215	CR STEEL	METAL
CALGON	AK 6215	NICKEL	OIL
CALGON	AK 6215	COPPER	OIL
CALGON	AK 6215	COPPER	OIL
CALGON	AK 6215	NICKEL	OIL
CALGON	AK 6215	COPPER	OIL
CALGON	AK 6215	NICKEL	OIL
CALGON	AK 6215	COPPER	OIL
CALGON	AK 6215	NICKEL	OIL
CALGON	AK 6215	COPPER	OIL
CALGON	AK 6215	NICKEL	OIL
CALGON	AK 6215	CR STEEL	OIL
CALGON	AK 6215	CR STEEL	METAL
CALGON	GEO-GUARD 2215	BRASS	BUFFING
CARROLL	BLUE GOLD	NICKEL	OIL
CHURCH&DWIGHT	SS	OIL	
DELTA OMEGA	DOT 111/113	SS	CARBON
DOW	DOWANOL PnB	GLASS	ROSIN
FINE ORGANICS	FO2085 M	SS	OIL
INT. PRODUCTS	MICRO	GLASS	PITCH
INT. PRODUCTS	MICRO	GLASS	POLISH
LPS	PRECISION CLEAN	GLASS	PITCH
LPS	PRECISION CLEAN	GLASS	POLISH
MACDERMID	ND 17	SS	OIL
MACDERMID	ND 17	GLASS	PITCH
MACDERMID	ND 17	GLASS	POLISH
MACDERMID	ND 17	SS	OIL
MAGNAFLUX	ZYGLO ZR 1OB	NICKEL	OIL
MAGNAFLUX	ZYGLO ZR 1OB	NICKEL	OIL
MATCHLESS	MC 580	AL	OIL
MATCHLESS	MC 580	AL	DUST
MATCHLESS	MC 580	AL	DIRT
MATCHLESS	MC 580	STEEL	OIL
MATCHLESS	MC 580	STEEL	DUST
MATCHLESS	MC 580	STEEL	DIRT
MATCHLESS	MC 580	AL	FINGERPRINTS
MATCHLESS	MC 580	STEEL	FINGERPRINTS
OAKITE	INPROCLEAN 3800	COPPER	OIL
OAKITE	INPROCLEAN 3800	GLASS	WAX
OAKITE	INPROCLEAN 3800	GLASS	WAX
OAKITE		SS	LUBRICANT

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	INPROCLEAN 3800		
OAKITE	INPROCLEAN 3800	SS	OIL
OAKITE	INPROCLEAN 3800	GLASS	PITCH
OAKITE	INPROCLEAN 3800	GLASS	POLISH
OAKITE	INPROCLEAN 3800	AL	OIL
OAKITE	INPROCLEAN 3800	AL	DUST
OAKITE	INPROCLEAN 3800	AL	DIRT
OAKITE	INPROCLEAN 3800	STEEL	OIL
OAKITE	INPROCLEAN 3800	STEEL	DUST
OAKITE	INPROCLEAN 3800	STEEL	DIRT
OAKITE	INPROCLEAN 3800	AL-OXIDE	INK
OAKITE	INPROCLEAN 3800	AL-OXIDE	PAINT
OAKITE	INPROCLEAN 3800	AL	FINGERPRINTS
OAKITE	INPROCLEAN 3800	STEEL	FINGERPRINTS
OAKITE	INPROCLEAN 3800	SS	LUBRICANT
OAKITE	INPROCLEAN 3800	SS	PLASTIC
OAKITE	INPROCLEAN 3800	BRASS	BUFFING
OCCIDENTAL CHEMICAL	OXSOL 100	GLASS	ROSIN
ROCHESTER	SPLIT/110/ NaOH	AL	CARBON
SKY PRODUCTS	CLEANER #10	COPPER	OIL
SWR CORP	SWR ONE	NICKEL	OIL
SWR CORP	SWR ONE	NICKEL	OIL
SWR CORP	SWR ONE	NICKEL	OIL
US POLYCHEM	2000 XS	SS	LUBRICANT
US POLYCHEM	2000 XS	AL	OIL
US POLYCHEM	2000 XS	AL	DUST
US POLYCHEM	2000 XS	AL	DIRT
US POLYCHEM	2000 XS	STEEL	OIL
US POLYCHEM	2000 XS	STEEL	DUST
US POLYCHEM	2000 XS	STEEL	DIRT
US POLYCHEM	2000 XS	AL	FINGERPRINTS
US POLYCHEM	2000 XS	STEEL	FINGERPRINTS
US POLYCHEM	2000 XS	SS	LUBRICANT
US POLYCHEM	2000 XS	SS	PLASTIC
VALTECH	VALTRON SP 2275	PLASTIC	FINGERPRINTS
VALTECH	VALTRON SP 2275	PLASTIC	OIL
VALTECH	VALTRON SP 2275	NICKEL	OIL
VALTECH	VALTRON SP 2275	NICKEL	OIL
VALTECH	VALTRON SP 2275	NICKEL	OIL

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WR GRACE	DARACLEAN 212	SS	OIL
WR GRACE	DARACLEAN 232	AL	CARBON
WR GRACE	DARACLEAN 232	AL	LUBRICANT
WR GRACE	DARACLEAN 232	AL	OIL
WR GRACE	DARACLEAN 235	AL	OIL
WR GRACE	DARACLEAN 282	SS	LUBRICANT
WR GRACE	DARACLEAN 282	SS	BUFFING
WR GRACE	DARACLEAN 282	SS	FINGERPRINTS
WR GRACE	DARACLEAN 282	SS	OIL
WR GRACE	DARACLEAN 282	SS	BUFFING
WR GRACE	DARACLEAN 282	SS	FINGERPRINTS
WR GRACE	DARACLEAN 282	SS	OIL
WR GRACE	DARACLEAN 282	AL-OXIDE	INK
WR GRACE	DARACLEAN 282	AL-OXIDE	PAINT
WR GRACE	DARACLEAN 282	NICKEL	OIL
WR GRACE	DARACLEAN 282	COPPER	OIL
WR GRACE	DARACLEAN 282	COPPER	OIL
WR GRACE	DARACLEAN 282	COPPER	OIL
WR GRACE	DARACLEAN 282	NICKEL	OIL
WR GRACE	DARACLEAN 282	NICKEL	OIL
WR GRACE	DARACLEAN 282	COPPER	OIL
WR GRACE	DARACLEAN 282	NICKEL	OIL
WR GRACE	DARACLEAN 282	SS	LUBRICANT
WR GRACE	DARACLEAN 282	SS	PLASTIC
WR GRACE	DARACLEAN 282 GF	SS	OIL
WR GRACE	DARACLEAN 282 GF	SS	OIL
WR GRACE	DARACLEAN 282 GF	SS	OIL
WR GRACE	DARACLEAN 283	SS	METAL
WR GRACE	DARACLEAN 283	SS	OIL
WR GRACE	DARACOAT 615	CR STEEL	OIL
WR GRACE	DARACOAT 615	CR STEEL	METAL
WR GRACE	DARAGUARD 416	CR STEEL	OIL
WR GRACE		CR STEEL	METAL

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	DARAGUARD 416		
WR GRACE	DARAGUARD 416	SS	OIL

These vendor supplied information on product usage for the above products can be found in Table 2. Only two products are not listed in this table (GP, ZYGLO ZR 1OB).

Table 2. Product Information

2000 XS
6333
815 GD
AK 6215
Alcojet
Blue Gold
Citranox
Cleaner #10
Daraclean 212
Daraclean 232
Daraclean 235
Daraclean 282
Daraclean 282 GF
Daraclean 283
Daracoat 615
Daraguard 416
DOT 111/113
PNB
FO2085 M
Geo-Guard 2215
InproClean 3800
LPS Precision Clean
MC 580
MICRO
ND 17
Oxsol 100
SWR One
Valtron SP 2275

Summary:

Conclusion: For further information or MSDSs on any of the listed products contact the lab at (978)934-3133.