



Industrial Seminar

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End User Module

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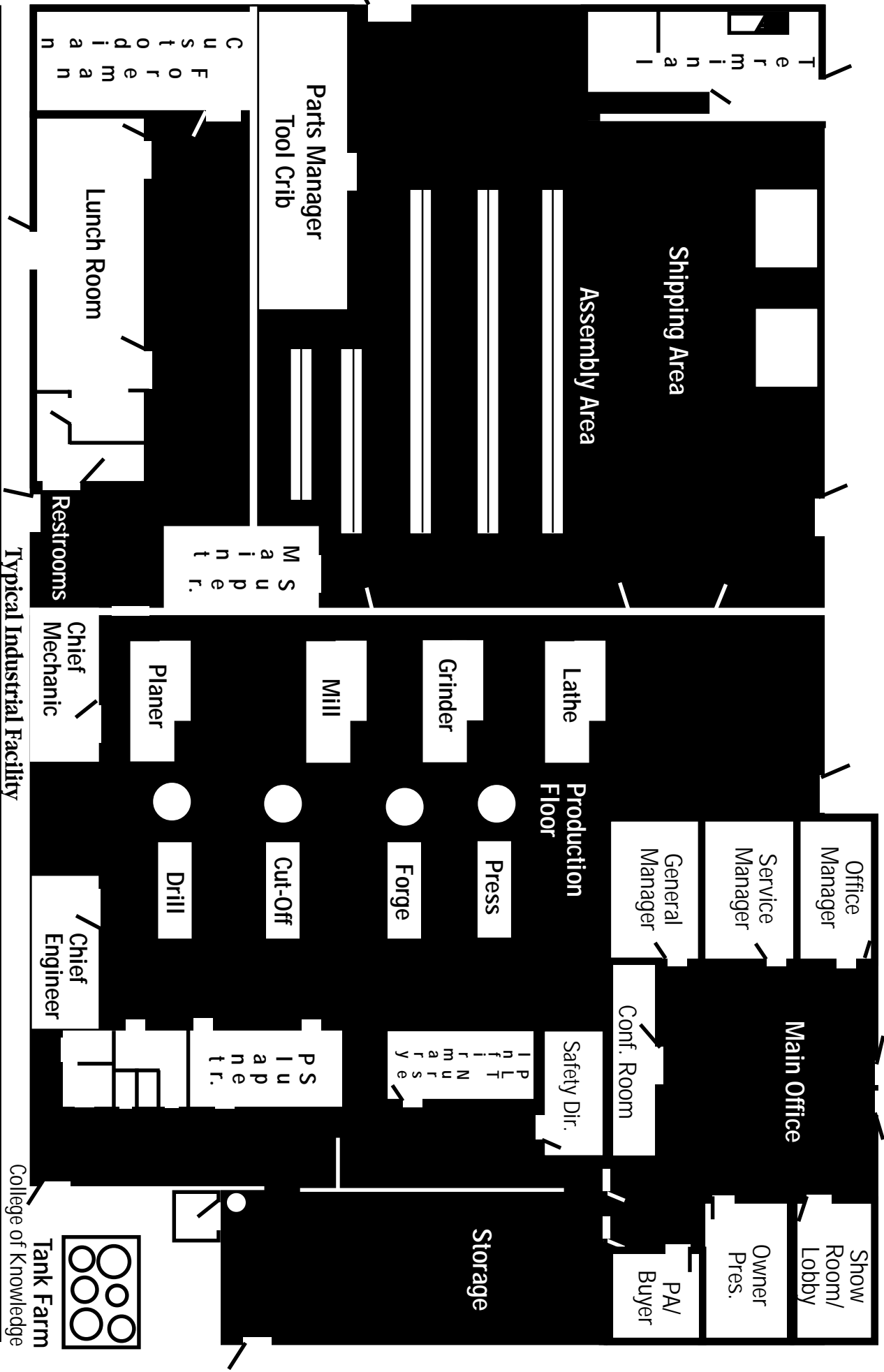
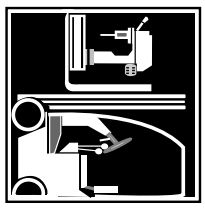
Product Listing By Department

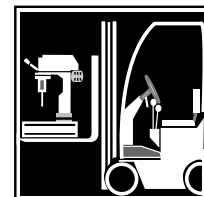
Procedures

- Floor Care Methodization: Industrial
- Restrooms/Locker Rooms/Shower
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- Cafeteria
- Lobbies
- Infirmary
- Wall Washing
- Hand Washing
- Maintenance, Carts, Closets, Equipment & Supplies

Glossary of Terms

* 3 Dimensional Virtual Reality training available on CD-ROM for this module from your distributor.

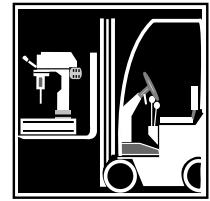




Important Issues

A. The History of Industrial Solvents

- 1) Chlorinated solvents
 - a. Introduced in the last 40-50 years
 - b. Ethylene or ethane modified with chlorine
- 2) Aliphatic petroleum naphthas
 - a. Group of solvents characterized by the distributed range and mole configuration of the carbon chain back bone.
Examples: Stoddard solvent, mineral seal oil, mineral spirits
- 3) Butyls
 - a. Refer to a class of glycol ethers
Example of Butyls: butyl cellosolve
- 4) Glycol ethers
 - a. Chemical compounds characterized by an ether link
Examples of glycol ether
 - aa. DM Diethylene glycol methyl ether
 - bb. DPM Dipropylene glycol methyl ether
 - cc. DB Diethylene glycol butyl ether
- 5) Aromatic hydrocarbons
 - a. Special class of solvents characterized by a ring structure which allows for a sharing of electrons (Double bond.)
Examples of Aromatic Hydrocarbons
 - aa. Toluene
 - bb. Xylene
- 6) Alkaline builders
 - a. Anionic surfactants work progressively better as the pH increases. To boost the pH level to a higher reading, alkaline builders are added to the formula.
 - b. Examples of alkaline builders are:
 - aa. Sodium metasilicate
 - bb. Sodium hydroxide (Soda Ash) (Caustic Soda)
 - cc. Potassium hydroxide (Potash)

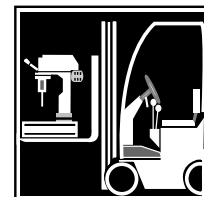


Important Issues (continued)

B. Solvent Cross-Reference Chart of Uses, Advantages, and Disadvantages ¹

Solvent	Solvent Family	Typical Uses	Advantages	Disadvantages
1,1,1 - trichloroethane	Chlorinated Solvents	Dip tank cleaning Electrical contact cleaning Vapor cleaning	Non-flammable, high dielectrical constant, Dries (flashes) very quickly	Ozone depleting chemical moderately toxic, CAA will phase out its use by 1996
Trichloroethylene	Chlorinated Solvents	Dip tank cleaning Electrical contact cleaning Vapor cleaning	Non flammable, high dielectrical constant, Dries (flashes) very quickly	2.5 to 10 times more toxic as 1,1,1 when inhaled. Highly toxic, is a VOC in most states. Moderately toxic by ingestion. Mutagenic. Experimental carcinogen, tumorigen, causes narcosis & anaesthesia, causes headaches and nausea Damage to liver and other organs from chronic exposure. Combustible. When heated...emits toxic fumes. ¹
Perchloroethylene	Chlorinated Solvents	Dry cleaning Aerosols - Lubricants Penetrants	Non flammable, high dielectrical constant, Dries (flashes) very quickly & non-staining No flash point	2.5 to 10 times more toxic as 1,1,1 when inhaled, Highly toxic, is a VOC in most states. Poison by intravenous route. Moderately toxic by inhalation, ingestion, skin contact. Can cause dermatitis. Experimental carcinogen. Mutagenic. When heated emits toxic fumes. ¹
Methylene Chloride	Chlorinated Solvents	Paint strippers, Seal strippers	Non flammable, & very effective in stripping, Expensive as compared to Aliphatic & Aromatics	2.5 to 10 times more toxic as 1,1,1 when inhaled, Highly toxic, is a VOC in most states. Moderately toxic. Poison by inhalation. Blood & central nervous system effects by inhalation. Mutagenic. Strong narcotic. Can yield toxic fumes. ¹
Methyl Ethyl Ketone (MEK)	Ketones	Plastic resins - Lube oils Adhesives	Dries quickly, emulsifies plastics & activates some adhesives	A VOC in most states, heavy odor, may cause headaches, dizziness & nausea, must use in well-ventilated area with PPE
Freon	Fluorocarbon solvents Chlorinated solvents	Air-conditioning Drying agent Parts cleaning Chewing gum remover	Fast drying, no flash point Excellent cleaner	Ozone-depleting chemical Very expensive, seal handling, Requirements - CAA to phase out freons completely

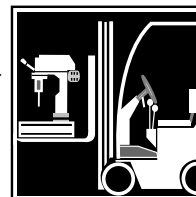
¹ Hazardous Chemicals Desk Reference, Sax and Lewis



Important Issues (continued)

B. Solvent Cross-Reference Chart of Uses, Advantages, and Disadvantages ¹

Solvent	Solvent Family	Typical Uses	Advantages	Disadvantages
Butyl DE, EB	Glycol ethers	Waterbased cleaners of all types	Inexpensive, very effective cleaner - diverse Water soluble Non-Flammable	Attack aluminum, noticeable odor, more toxic than other glycol ethers, included on SARA Title 3 list for toxic release
DPM, DM, DB	Glycol Ethers	Waterbased cleaners of all types	Very effective cleaners diverse in application, will attack aluminum, lower odor, Water soluble Non-Flammable	
Acetone	Ketone	Fingernail polish remover Parts cleaning, Degreasing	Inexpensive	Extremely flammable, is a VOC in most states
Toluene	Aromatic Hydrocarbon	For solubilization of acrylics & lacquers that aliphatics don't solubilize		Flammable, VOC in most states
Xylene	Aromatic Hydrocarbons	Solvent for plastics, acrylics, paints	Outstanding solvent qualities	Flammable Benzene derivative
Mineral Seal Oil Mineral Spirits Stoddard Solvent Naptha Kerosene	Straight chain aliphatic Aliphatic petroleum naphthas	Degreasing, parts cleaning, Fuel, dust mop treatment where water base systems are inappropriate	Inexpensive, usually effective, high dielectrical constants, availability, solvency is better than water	VOC in most states, insoluble in water, leaves residue, combustible, odor, solvency not as high as chlorinated solvents, slower to dry, greater toxicity than water-based solvents
d-Limonene	Terpenes	Cleaning, degreasing & deodorizing	Natural, organic, good cleaner, non hazardous, good solvent, may be waterbase or in emulsion with mineral spirits	Low flash point, leaves residue, may cause headaches & nausea, very expensive



Important Issues (continued)

C. Solvent Cross-Reference Chart of Regulatory Impact ¹

Solvent	VOC (most states)	Ozone Depletor	Estimate Atmosphere Life/Days	Clean Air Act Hazardous Substance	SARA 313 Substance	8-hr. TWA (PPM)	Flash Pt. °F (TCC)
Acetone	Yes	No		No	No	750	0
Methylene Chloride	No	No	131	Yes	Yes	500	None
Perchloroethylene (PCE)	Yes	No	115	Yes	Yes	25	None
Toluene	Yes	No		Yes	Yes	100	40-45
1,1,1- Trichloroethane	No	Yes/0.1	5.7 years	Yes	Yes	350	None
Trichloroethylene (TCE)	Yes	No	5	Yes	Yes	50	None
Xylene (mixed isomers)	Yes	No		Yes	Yes	100	85

D. Government legislation affecting industry

- 1) Clean Air Act - plant emissions
- 2) Montreal Protocol - Part of Clean Air Act - Plant Emissions /ODC (Ozone Depleting Chemical)
- 3) SARA Title 3 - User of compounds covered under SARA Title 3 must provide toxic release information to EPA every July 1st.
- 4) CERCLA - Cleaning disposal sites
- 5) Prop 65 - California only - Label must provide if prop 65 chemicals are contained therein. Warns against reproductive complications and carcinogens.

E. Engineering & manufacturing issues resulting from the changeover from chlorinated solvents to water-based

- 1) Dry time
- 2) Vapor/heat
- 3) Residue
 - a. Welding
 - b. Painting
- 4) Flash rust

¹ Hazardous Chemicals Desk Reference, Sax and Lewis



Important Issues (continued)

- E. **Engineering & manufacturing issues resulting from the changeover from chlorinated solvents to water-based (continued)**
 - 5) Dielectrical constants
 - 6) Economy - ability to be diluted
 - 7) Disposal
 - 8) Cooling towers
 - 9) Safety
 - 10) Reclamation

- F. **Popular Degreasing Methods**
 - 1) Spray & wipe
 - 2) Pressure wash
 - a. With heat
 - b. Without heat
 - 3) Dip tank
 - a. With agitation
 - aa. Mechanized
 - bb. Air/bubbles
 - b. Vapor/steam
 - 4) Bucket and rag/brush
 - 5) Parts cleaner tank and brush
 - 6) Automatic scrubber
 - 7) Mop and bucket



Chemicals & Related Product Listing

<u>Department</u>	<u>Chemical</u>	<u>Related Product</u>
Administration Area	_____	_____
	_____	_____
	_____	_____
	_____	_____
Production Assembly Area	_____	_____
	_____	_____
	_____	_____
	_____	_____
Restroom/ Showerroom	_____	_____
	_____	_____
	_____	_____
	_____	_____
Storage Area	_____	_____
	_____	_____
	_____	_____
	_____	_____
Lunchroom Area	_____	_____
	_____	_____
	_____	_____
	_____	_____
Loading Dock	_____	_____
	_____	_____
	_____	_____
	_____	_____
Other/ Infirmary	_____	_____
	_____	_____
	_____	_____
	_____	_____



Product Listing by Department

Product	USDA	Admin. Area	Production Area	Assembly Area	Storage Area	Restroom/ Lunchroom	Loading Dock	Other/ Infirmary
302 D/T Bowl Cleaner	C2					Inside urinal & toilet bowl.		
305 T/C Bowl/Tile/ Porcelain Cleaner	C2					Use in in-plant shower facility, toilets, urinals, tile, etc.		
3410 Tile, Grout, & Bathroom Cleaner Deodorizer	C2 Equ.					Use in in-plant shower facility, toilets, urinals, tile, etc.		
315 Mid Acid Bowl Cleaner	C2					Inside urinal & toilet bowl.		
325 T/N/A Bowl & Bathroom Cleaner	C2					For cleaning or disinfection of tubs, tile, porcelain, grout & fiberglass.		
400 Bacterial Digestant Deodorant	C1		Use in sumps on laths, grinders, planners, presses as well as floor drains.	Use in floor drains.	Use as drain maintainer, for storage tanks or holding ponds.	Treatment of floor drains, grease traps (Daily), slop sinks. (Twice weekly)	Floor drains.	For proper control of foul odors.
420 Glass, Plastic & CRT Cleaner RTU	A1	Use on windows, computer screens, metal frames, formica, etc.	Cleaning & static control of CRT screens, equipment key pads, fragile plastics & windows.	Cleaning & static control of CRT screens, equipment key pads, fragile plastics & windows.	Cleaning & static control of CRT screens, equipment key pads, fragile plastics & windows.	Vending machines mirrors, windows, signs.		
421 Glass, Plastic & CRT Cleaner Concentrate	C1 Equ.							
3421 Glass, Plastic & CRT Cleaner	A1 Equ.							
1220 Glass, Plastic & CRT Cleaner	C1 Equ.							
430 Creme Cleanser	A6					Use in bradley fountain sinks where mineral deposits exist.		
703 Low Suds Automatic Scrubber Floor Cleaner	A4		Auto-scrubber will remove tough grease & dirt, not floor seal.	Auto-scrubber will remove tough grease & dirt, not floor seal.		Auto-scrubber will remove tough grease & dirt, not floor seal.		
704 Rinse Free Floor Stripper	A4 Equ.	Stripping finished floors. (Interim maintenance)	Stripping finished floors. (Interim maintenance)	Stripping finished floors. (Interim maintenance)	Stripping finished floors. (Interim maintenance)	Stripping finished floors. (Interim maintenance)	Stripping finished floors. (Interim maintenance)	Stripping finished floors. (Interim maintenance)
706 Butyl Free, Low Odor UHS Floor Stripper	A4 Equ.	For low odor removal of heavy build-up of finish on floors & baseboards. (Interim maintenance)	For low odor removal of heavy build-up of finish on floors & baseboards. (Interim maintenance)	For low odor removal of heavy build-up of finish on floors & baseboards. (Interim maintenance)	For low odor removal of heavy build-up of finish on floors & baseboards. (Interim maintenance)	For low odor removal of heavy build-up of finish on floors & baseboards. (Interim maintenance)	For low odor removal of heavy build-up of finish on floors & baseboards. (Interim maintenance)	For low odor removal of heavy build-up of finish on floors & baseboards. (Interim maintenance)



Product Listing by Department (continued)

Product	USDA	Admin. Area	Production Area	Assembly Area	Storage Area	Restroom/ Lunchroom	Loading Dock	Other/ Infirmary
707 Super Charged Rinse Free Floor Stripper	A4 Equ.	Stripping finished floors. (Interim maintenance)	Stripping finished floors. (Interim maintenance)	Stripping finished floors. (Interim maintenance)	Stripping finished floors. (Interim maintenance)	Stripping finished floors. (Interim maintenance)	Stripping finished floors. (Interim maintenance)	Stripping finished floors. (Interim maintenance)
725 Water Based Dust Mop Treatment	NA	For daily dust mopping of most hard floors & surfaces.	For daily dust mopping of most hard floors & surfaces.	For daily dust mopping of most hard floors & surfaces.	For daily dust mopping of most hard floors & surfaces.	For daily dust mopping of most hard floors & surfaces.		For daily dust mopping of most hard floors & surfaces.
800 N/D Germicidal Cleaner	D1					} Use on walls, floors, tables, chairs, vending machines & sinks.		Use on walls, floors, tables, chairs, vending machines & sinks.
805 Neutral Disinfectant Cleaner	D1 Equ.							
3805 Germicidal Cleaner								
806 Neutral Hospital Disinfectant	D1 Equ.							
3806 Neutral Disinfectant Damp Mop								
803 S/V Disinfectant	D2		Utilize as sump clean out.	Utilize as sump clean out.		General disinf. for proper control of foul odors.		General disinf. for proper control of foul odors.
804 G/P Non-Acid Disinfectant Cleaner	C2	Use on walls, floors, tables, chairs, vending machines & sinks.	Utilize as Bactericide. Bacteriostat in sumps.	Utilize as Bactericide. Bacteriostat in sumps.		Use on walls, floors, tables, chairs, vending machines & sinks.		Use on walls, floors, tables, chairs, vending machines & sinks.
810 T/B Conc. Hospital Disinf. Clr.	NA							} Use in infirmary for body fluid clean-up
814 Q/T Tuberculo-cidal Spray Disnf. Clr.	C1							
815 Ultra Spray Disinfectant								
900 Industrial Strength Degreaser	A4 Equ.		} For manual machine cleaning & work-station clean-up.	For manual machine cleaning & work-station clean-up.				
700 Multi-Purpose Synthetic Detergent Complex	A4 Equ.							
3700 Deep Scrub Multi-Purpose Clnr.	A4 Equ.							
901 Solvent Based Industrial Cleaner/ Degreaser	A4 A8		Use as dip tank degreaser, pressure washer, steam cleaner, & automatic scrubber machines.	For manual machine cleaning & work-station clean-up.	Re-emulsify spilled & dried production chemicals.		For quick removal of black tow motor marks.	
902 Non-Butyl Industrial Detergent Complex	A4 Equ.		For removal of light to heavy grease, oil & organic soils.					
904 Citrus Foaming Spray & Wipe Cleaner	A1 Equ.	Use for wall spotting & counter tops.		Remove cutting oils from production parts before packing & Shipping		Use with daily maintenance program.		



Product Listing by Department (continued)

Product	USDA	Admin. Area	Production Area	Assembly Area	Storage Area	Restroom/ Lunchroom	Loading Dock	Other/ Infirmary
905 Enviro-Care Natural All Purpose Degreaser	C1		Use on all hard non-electrical surfaces for fast grease release. A superb shop replacement for 1-1-1 trichloroethane.	Use on all hard non-electrical surfaces for fast grease release. A superb shop replacement for 1-1-1 trichloroethane.	Re-emulsify spilled & dried production chemicals.	Use with daily maintenance program.	For quick removal of black tow motor marks.	
906 O/O RTU Multi-Purpose Clnr. & Dgr.	C1 Equ.							
907 O/O Conc. Multi-Purpose Cleaner & Degreaser	C1 Equ.							
910 Industrial Strength Spray & Wipe Cleaner Degreaser	C1	For heavy duty degreaser spray & wipe application	For heavy duty degreaser spray & wipe application	For heavy duty degreaser spray & wipe application	For heavy duty degreaser spray & wipe application	For heavy duty degreaser spray & wipe application	For heavy duty degreaser spray & wipe application	For heavy duty degreaser spray & wipe application
3910 Multi-Purpose Degreaser	C1 Equ.	permanent ink remover.	permanent ink remover.	permanent ink remover.	permanent ink remover.	permanent ink remover.	permanent ink remover.	permanent ink remover.
911 Non-Chlorinated Industrial Solvent	A1		Use as dip tank degreaser in pressure washer, steam cleaners, & automatic scrubber machines. Use on all hard non-electrical surfaces for fast grease release. A superb shop replacement for 1-1-1 trichloroethane.	Remove cutting oils from production parts before packing & shipping.	Re-emulsify spilled & dried production chemicals.		For quick removal of black tow motor marks.	
1000 Semi-Permanent Resilient Floor & Concrete Sealer	NA	For entrance floor material such as slate, terrazzo, quarry tile, resilient tile.	Use on production floors to stop concrete dusting, facilitate grease & oil spill clean ups.		Seal resilient tile prior to floor finish application.	Seal resilient tile prior to floor finish application.	Stops concrete dusting & aids in routine maintenance clean-up.	Seal resilient tile prior to floor finish application.
1001 Versatile Premium Floor Sealer	NA							
1018 High Gloss Economy Floor Finish	NA	For entrance floor material such as slate, terrazzo, quarry tile, resilient tile.	Use on production floors to stop concrete dusting, facilitate grease & oil spill clean ups.			Protective top coat for resilient tile.	Stops concrete dusting & aids in routine maintenance clean-up.	Protective top coat for resilient tile.
1020 High Gloss Premium Floor Finish	NA	For entrance floor material such as slate, terrazzo, quarry tile, resilient tile.	Use on production floors to stop concrete dusting, facilitate grease & oil spill clean ups.			Protective top coat for resilient tile.	Stops concrete dusting & aids in routine maintenance clean-up.	Protective top coat for resilient tile.
1022 Ultra Versatile Premium Floor Fin.	NA							
1025 High Performance Floor Finish	NA							
*1200 Furniture Polish	NA	For daily/weekly application to wooden surfaces.	For daily/weekly application to wooden surfaces.	For daily/weekly application to wooden surfaces.	For daily/weekly application to wooden surfaces.			For daily/weekly application to wooden surfaces.



Product Listing by Department (continued)

Product	USDA	Admin. Area	Production Area	Assembly Area	Storage Area	Restroom/ Lunchroom	Loading Dock	Other/ Infirmary
*1201 Sweet Tropic Mist Air Freshener & Neutralizer	C1 Equi.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.
*1202 Baby Fresh Scent Air Freshener & Neutralizer	C1 Equi.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.
*1205 Dust Mop Treatment	C1 Equi.	For regular application to dust mops & dusting & dusting tools to tools to enhance the ability to attract & hold dust.	For regular application to dust mops & dusting & dusting tools to tools to enhance the ability to attract & hold dust.	For regular application to dust mops & dusting & dusting tools to tools to enhance the ability to attract & hold dust.	For regular application to dust mops & dusting & dusting tools to tools to enhance the ability to attract & hold dust.	For regular application to dust mops & dusting & dusting tools to tools to enhance the ability to attract & hold dust.	For regular application to dust mops & dusting & dusting tools to tools to enhance the ability to attract & hold dust.	For regular application to dust mops & dusting & dusting tools to tools to enhance the ability to attract & hold dust.
*1207 Gelled Baseboard Stripper	C1 Equi.	For quick removal of floor finish & dirt from baseboards & hard to reach areas.	For quick removal of floor finish & dirt from baseboards & hard to reach areas.					For quick removal of floor finish & dirt from baseboards & hard to reach areas.
*1210 Stainless Steel Clnr. Polish	A7 Equi.	For use when polishing stainless steel dispensers sinks & decor.	For use when polishing stainless steel dispensers sinks & decor.		For use when polishing stainless steel dispensers sinks & decor.	For use when polishing stainless steel dispensers sinks & decor.		
*1211 Stainless Steel Clnr. Polish	C1 Equi.	For use when polishing stainless steel dispensers sinks & decor.	For use when polishing stainless steel dispensers sinks & decor.		For use when polishing stainless steel dispensers sinks & decor.	For use when polishing stainless steel dispensers sinks & decor.		
*1220 Glass, Plastic & CRT Cleaner	C1 Equi.	For cleaning of mirrors, glass, walls, doors & signs.	For cleaning of mirrors, glass, walls, doors & signs.	For cleaning of mirrors, glass, walls, doors & signs.	For cleaning of mirrors, glass, walls, doors & signs.	For cleaning of mirrors, glass, walls, doors & signs.		
*1230 Disinfectant Deodorant	C1 Equi.	Daily spray disn. of all hard nonporous surfaces.	Daily spray disn. of all hard nonporous surfaces.	Daily spray disn. of all hard nonporous surfaces.	Daily spray disn. of all hard nonporous surfaces.	Daily spray disn. of all hard nonporous surfaces.		
*1240 Foaming Disinfectant Cleaner	C1 Equi.		Daily cleaning & disn. of all hard nonporous surfaces.	Daily cleaning & disn. of all hard nonporous surfaces.	Daily cleaning & disn. of all hard nonporous surfaces.	Daily cleaning & disn. of all hard nonporous surfaces.	Daily cleaning & disn. of all hard nonporous surfaces.	
*1250 Chewing Gum Remover	NA	Removal of chewing gum from fabrics, upholstery & carpets.						
*1260 Flying Insecticide	F1 Equi.	} For the eradication of crawling & flying insects.				For the eradication of crawling & flying insects.		
*1270 Residual Insecticide	F2 Equi.							
*1280 Wasp & Hornet Insecticide	F2 Equi.							

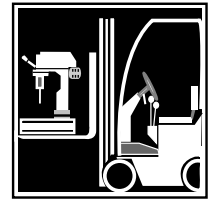


Product Listing by Department (continued)

Product	VRE	MRSA	Antimi- crobial/ Antiseptic	Aloe Vera	Petro- leum Dist.	USDA Auth.	Uses
500 Lotion Hand Cleaner	-	-	-	Y	N	E-4 Equiv.	Regular hand washings not requiring antibacterial claims.
501 Premium Hand Wash	N	N	N	Y	N	E-4 Equiv.	Luxury hand washing - not requiring antibacterial claims
505 Antiseptic Lotion Cleanser	Y	Y	Y	Y	N	E-4 Equiv.	Regular hand washings requiring antibacterial, antimicrobial or antiseptic claims.
510 Antimicrobial Food Service Hand Wash	Y	Y	Y	Y	N	E-2	Regular hand washings requiring antibacterial, antimicrobial or antiseptic claims.
515 Instant Hand Sanitizer (gel-type)	Y	Y	SKIN sanitizer	Y	N	E-4 Equiv.	Utilized when multiple hand washings are required or running water and/or towels are not accessible.
520 Gentle Hair and Body Wash	N	N	N	Y	N	E-4 Equiv.	Hair and body wash or utilize as a luxury hand soap.
525 Hand & Body Lotion	N	N	N	Y	N	E-4 Equiv.	Utilized when a hand and body lotion is required due to frequent hand washings or dry conditions. Also used heavily by those individuals required to wear latex gloves and when glove integrity is of absolute importance.
540 Water Lotion Grit Cleanser	N	N	N	Y	Y	E-4 Equiv.	Utilized for grease, oil and heavy soil removal from hands when a water source is not accessible.
545 Waterless Paste Hand Cleaner	N	N	N	Y	Y	E-4 Equiv.	Utilized for grease, oil and heavy soil removal from hands when a water source is not accessible.
550 Waterless Paste Hand Cleaner (grit-type)	N	N	N	Y	Y	E-4 Equiv.	Utilized for grease, oil and heavy soil removal from hands when a water source is not accessible.
560 Citrus Solvent Waterless Grit Cleanser	N	N	N	Y	N	E-4 Equiv.	Utilized for removing inks, paints, oils and soils. Typically chosen by users requiring non-petroleum, solvent based hand cleaners, with grit.

Product	Dilu.	All Departments Requiring Deodorization
600 Liquid Malodor Counteractant (Lemon)	1 oz./gal. 12 oz./gal. *RTU	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.
601 Liquid Malodor Counteractant (Vanilla)	1 oz./gal. 12 oz./gal. *RTU	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.
602 Liquid Malodor Counteractant (Peach Kiwi)	1 oz./gal. 12 oz./gal. *RTU	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.
603 Liquid Malodor Counteractant (Harmony)	1 oz./gal. 12 oz./gal. *RTU	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.
3604 Liquid Malodor Counteractant	1:88 cartridge	Utilized to eradicate unwanted odors from carpets, upholstery, defined spaces.

*RTU = Ready to use



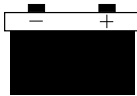
Floor Care Methodization: Industrial Equipment Maintenance

A. Automatic Scrubbers



- 1) Battery-operated power equipment, like an automatic floor scrubber, needs special care and maintenance. See owners manual before proceeding.
- 2) These units compare in price to that of compact automobiles. Because of that, they should be treated with utmost care and according to manufacturer's instructions.
- 3) It is advisable to grease the casters once every week. Oil all moving parts, such as the control bars, squeegee control rods, pressure points and hinges once every month.
- 4) Make sure that each drive wheel tire is inflated to the recommended tire pressure. Unequal tire pressures can adversely affect the total operation of the machine.
- 5) Drive brushes should be removed and cleaned after each use. The drive brush mechanism needs to be adjusted and lubricated according to the manufacturer's instructions.
- 6) The squeegee assembly should be adjusted and lubricated. The reversible squeegee blades also need regular cleaning and adjusting.
- 7) An automatic scrubber has a solution tank, a recovery tank, and filters that should be flushed and cleaned on a regular schedule.

Battery Maintenance



- 1) When working with batteries, leave the battery compartment covered up and work in a well-ventilated area. Do not wear rings, because they can become welded to metal wrenches if a live terminal is accidentally touched.
- 2) Check the fluid level in the battery cells at least weekly. The battery caps are easily removed by pressing the ends of the white plastic extensions.
- 3) Check the electrolyte status of each battery cell with a hydrometer every 15 operating hours.
- 4) Periodically, check all battery cable and wiring for signs of damage or wear. Replace as needed. Once a month, remove all batteries from your machine. Clean all batteries, battery tray, and battery compartment with a solution of baking soda and water.
- 5) On the bottom of the battery compartment cover is a battery wiring diagram. Follow this diagram when you put the battery wires on the terminals. To prevent corrosion, apply a film of grease or Vaseline to battery lugs and bolt studs. Do not reverse connections when servicing or replacing the batteries.

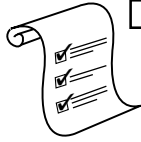
Battery Charger

- 1) When actively using an automatic scrubber, you will use a battery charger to re-charge the batteries. With the charger unplugged from the electrical wall outlet, find the main connector that is marked "Connect To Charger." Firmly push the two connectors together. When laying the charging cables across the batteries, be careful not to allow the metal parts of the connectors touch any battery terminals. Set the battery charger control according to the rate of current desired. After charging, remove the charger plug from the wall outlet and disconnect the charging cable. Reconnect main battery terminals.



Floor Care Methodization: Industrial

Dust Mop Procedures



A. Materials Requirement Planning (MRP)

- a. Dust mop, frame & handle
- b. Dust mop treatment
- c. Putty knife
- d. Brush
- e. Plastic liner

B. Plant Floor Dust Mop Procedures



- 1) Acquire dust mop of choice
 - a. Choose appropriate size
 1. Handle size and diameter
 2. Dust mop length should be small enough to maneuver, yet large enough to allow for labor-saving operation
 - b. Ensure that dust mop is clean

- 2) Choose start/stop points to allow for completion of the task nearest the exit or trash receptacle



- 3) Treat dust mop with a water-based dust mop treatment
 - a. Use approximately 1 oz. of treatment per 6" of dust mop length

- 4) Hold dust mop handle at approximately a 45° angle

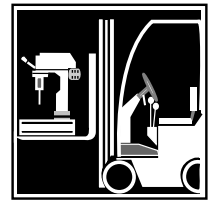
- 5) Push or "plow" straight ahead from one end of the area to the next
 - a. Do not allow mop head to leave the floor

- 6) Pivot mop at appropriate turning point
 - a. Avoid changing the leading edge of dust mop
 - b. Overlap last pass by at least 6-10 inches

- 7) Utilize a dust pan and brush to dispose of corruption not held by the mop yarns
 - a. Remove gum/tar from floor with a putty knife
 - b. Utilize brush to remove dust from corners



- 8) Remove dust mop frame and head from handle, and shake or brush loose dirt from mop head into a plastic liner
 - a. Place in storage area
 - b. Launder when brushing is no longer effective

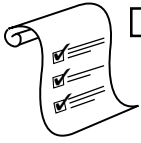


Floor Care Methodization: Industrial

Damp Mop Procedures

A. Materials Requirement Planning (MRP)

- a. Wet mop, handle
- b. Mop bucket and wringer
- c. Degreaser/cleaner concentrate



B. Plant Floor Mopping Procedures

- 1) Dust mop area
- 2) Choose appropriate wet mop size and type
- 3) Fill mop bucket to desired level with water
- 4) Add chemical to water at proper dilution
 - a. Utilize a neutral pH cleaner for light soils, higher pH degreaser for heavy soils and grease
 - b. A second bucket for rinsing may be required for double bucket mopping
- 5) Submerge mop into bucket
- 6) Wring out mop to desired dampness
 - a. Use legs, not your back, to apply wringer pressure
- 7) Confirm that all safety signs and apparel are properly located
- 8) Begin mopping at farthest point from door
 - a. Outline or "picture frame" area
 - b. Mop in a figure 8 motion
- 9) Change water when needed to avoid redepositing dirt on floor
- 10) Repeat steps 1 - 9 as necessary





Floor Care Methodization: Industrial

Plant Floor Cleaning



A. Materials Requirement Planning (MRP)

- a. Auto scrubber
- b. Degreaser/cleaner
- c. Brushes/pads
- d. Detail mop/wet mop
- e. Squeegee
- f. Scrap rags
- g. Defoamer (if required)

B. Plant Floor Cleaning - Semi-Automated



- 1) Choose appropriate pad or brush for autoscrubber
- 2) Properly mix automatic scrubber solution tank with scrubbing solution
When pouring out of a 5 gal. pail, pour with bung at top of pail
- 3) Scrub 200 square foot area with automatic scrubber equipped with blue scrubbing pads
 - a. Pads down
 - b. Solution control on; disperse properly diluted scrubbing solution
 - c. Squeegee up, vac off
- 4) Overlap each pass until 200 square foot area is scrubbed completely
- 5) Make second pass with automatic scrubber and pick up scrubbing solution
 - a. Pads down
 - b. Solution control off
 - c. Squeegee down, vac on
- 6) Utilize a detail mop to absorb scrubbing solution from corners, baseboards and all squeegee trails
- 7) Repeat 3 - 6 as required to complete job
- 8) Wipe down all baseboards if needed

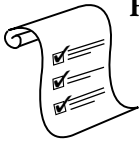




Floor Care Methodization: Industrial

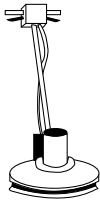
Performing Preventative, Interim or Restorative Cleaning Tasks

Floor Care Materials Requirement Planning (MRP)



System 1 - Restorative maintenance (strip, seal, refinish)

1) Strip



- a. Mop buckets and wringers
- b. Cotton wet mops & handles
- c. Scrubbing machine
- d. Strip pack & machine pad holder
- e. Dust mop & dust pan
- f. Putty knife or scraper
- g. Dust mop treatment H₂O (water based)
- h. Wet/Dry vacuum
- i. Extension cords
- j. Clean rags
- k. Stripper slippers
- l. Gloves
- m. Clean rinsed cotton mop & handle
- n. Trigger sprayer
- o. "Wet Floor" signs
- p. Measuring cup
- q. Stripper
- r. Neutralizer
- s. Towels & tape
- t. Squeegee

2) Seal



- a. Mop buckets with wringer
- b. Plastic liners to fit bucket
- c. Rayon mops & handles (looped)
- d. Floor sealer
- e. "Wet Floor" signs

3) Refinish



- a. Mop bucket & wringer
- b. New plastic liner to fit bucket
- c. New or clean rayon mops (looped)
- d. Mop handles
- e. "Wet Floor" signs
- f. Floor finish



Floor Care Methodization: Industrial

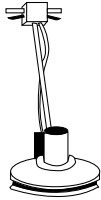
Performing Preventative, Interim or Restorative Cleaning Tasks



Floor Care Materials Requirement Planning (MRP)

System 2 - Clean & Restore

- 1) Clean & Restore
 - a. Mop buckets with wringers
 - b. Cotton mop & handle
 - c. Neutral cleaner
 - d. Dust mop & dust pan
 - e. Dust mop treatment
 - f. Measuring cup
 - g. "Wet Floor" signs
 - h. Spray buff in trigger sprayer
 - i. Floor restorer
 - j. Rayon mop & handle
 - k. Liner for restorer
 - l. Putty knife
 - m. Burnisher with red pad



System 3 - Deep Scrub & Recoat

- 1) Deep Scrub & Recoat
 - a. Dust mop & dust pan
 - b. Dust mop treatment
 - c. Pads - blue or brown
 - d. Automatic or hand-held floor scrubber
 - e. All purpose cleaner (low suds)
 - f. Mop bucket & wringer
 - g. Cotton mop & handle
 - h. Floor finish
 - i. Mop bucket & wringer with liner
 - j. Putty knife
 - k. Rayon mop
 - l. Neutralizer
 - m. Stripper slippers
 - n. "Wet Floor" signs





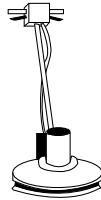
Floor Care Methodization: Industrial

Performing Preventative, Interim or Restorative Cleaning Tasks

Floor Care Procedures

System 1 – Strip Seal & Refinish

1) Stripping – Semi-Manual

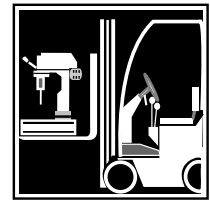


- a. Choose appropriate mop handle
- b. Properly mix mop bucket of stripping solution
When pouring out of a 5 gal. pail, pour with bung at the top of the pail
- c. Apply stripper liberally with mop to a 200 square foot area of floor as well as baseboards
- d. Let stand for 5 minutes
- e. Agitate floor with 17" floor machine and black pad. Agitate baseboard and corners with baseboard tool and bladed scrapers
 1. Stay away from walls to avoid splashing
 2. Overlap passes by at least ten inches while stripping
- f. Pick up emulsified floor finish solution via wet/dry vacuum
- g. Utilize a detail mop to absorb stripper from corners, baseboards and all squeegee trails
- h. If a non-rinse-free stripper is being utilized, rinsing with a floor neutralizer is required to assure an alkaline-free floor
- i. Repeat c - h as required to complete job
- j. Wipe down all baseboards if needed

2) Stripping – Semi-Automated



- a. Choose appropriate mop and handle
- b. Properly mix mop bucket of stripping solution
When pouring out of a 5 gal. pail, pour with bung at the top of the pail
- c. Apply stripper liberally with mop to a 200 square foot area of floor as well as baseboards
- d. Let stand for 5 minutes
- e. Agitate baseboards
- f. Scrub aforementioned area with automatic scrubber equipped with black stripping pads
 1. Pads down
 2. Solution control on; disperse properly diluted stripping solution
 3. Squeegee up, vac off
- g. Overlap each pass until 200 square feet of area is scrubbed completely
- h. Make second pass with automatic scrubber and pick up emulsified stripping solution
 1. Pads down
 2. Solution control off
 3. Squeegee down, vac on
- i. Utilize a detail mop to absorb stripper from corners, baseboards and all squeegee trails
- j. If a non-rinse-free stripper is being utilized, rinsing with a floor neutralizer is required to assure an alkaline-free floor
- k. Repeat c - j as required to complete job
- l. Wipe down all baseboards if needed



Floor Care Methodization: Industrial

Performing Preventative, Interim or Restorative Cleaning Tasks

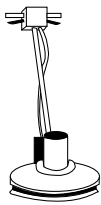
Floor Care Procedures

System 1 – Strip Seal & Refinish (continued)



- 3) Seal/Refinish Method (with mop)
 - a. Establish start/stop points
Choose start location as the furthest point from the door/water source
 - b. Place plastic liner in seal/finish bucket
 - c. Utilize rayon mop with looped ends and sewn tailband
 1. Shake mop out in a plastic liner to prevent manufacturing lint (off mop) from adhering to the floor
 2. Use separate mop for sealing and finishing
 - d. Dip mop in sealer/finish bucket; remove excess sealer/finish by pressing mop with a one quarter turn into wringer
 - e. Apply sealer/finish
 1. Outline or “picture frame” area on first coat and last coat
 2. Stay 6 inches away from wall on all subsequent coats
 3. All coats should be thin and without dry streaks
 - f. See sealer/finish application guide for correct number of coats of the finish you are utilizing
 1. Allow at least 25-35 minutes to dry between coats
 2. Allow 1 hour or more dry time between coats on very humid days

System 2 – Clean & Restore



- 1) Spray buffing
 - a. Choose appropriate product
 - b. Properly prepare spray buff to recommended dilution
 - c. Spray solution lightly ahead of buffing machine
 1. Overspraying will result in excessive pad buildup and poor gloss
 2. Turn/replace pad as required
 - d. Dust mop with a water-based dust mop treatment if necessary
 - e. For a higher gloss, repeat letters c and d with a lighter-colored pad
- 2) Mop on restorer
 - a. Choose appropriate pad and mount to machine
Utilize a high speed (1000 - 1500 RPM) or ultra high speed buffer
 - b. Prepare a mop bucket and wringer equipped with a plastic liner
 - c. Apply a thin, level coat of restorer to floor, utilizing a looped-end rayon mop
Allow to dry to a light haze
 - d. Buff floor with previously prepared machine
 - e. Dust mop
Utilize water-based dust mop treatment
 - f. For a higher gloss, repeat letters a - e with a lighter-colored pad



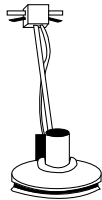
Floor Care Methodization: Industrial

Performing Preventative, Interim or Restorative Cleaning Tasks

Floor Care Procedures

System 3 – Deep Scrub & Recoat

1) Scrub Method – Semi-Manual



- a. Choose appropriate mop handle
- b. Properly mix mop bucket of neutral cleaner solution
 1. When pouring out of a 5 gal. pail, pour with bung at top of pail
- c. Apply neutral cleaner liberally with mop to a 200 square foot area of floor
- d. Let stand for 5 minutes
- e. Agitate floor with 17" floor machine and blue pad
 1. Stay away from walls to avoid splashing
 2. Overlap passes by at least ten inches while scrubbing
- f. Pick up scrubbing solution via wet/dry vacuum
- g. Utilize a detail mop to absorb scrubbing solution from corners, baseboards and all squeegee trails
- h. Repeat c - g as required to complete job
- i. Wipe down all baseboards if needed

2) Scrub Method – Semi-Automated



- a. Choose appropriate mop and handle
- b. Properly mix automatic scrubber solution tank with scrubbing solution
When pouring out of a 5 gal. pail, pour with bung at top of pail
- c. Scrub 200 square foot area with automatic scrubber equipped with blue scrubbing pads
 1. Pads down
 2. Solution control on; disperse properly diluted scrubbing solution
 3. Squeegee up, vac off
- d. Overlap each pass until 200 square foot area is scrubbed completely
- e. Make second pass with automatic scrubber and pick up scrubbing solution
 1. Pads down
 2. Solution control off
 3. Squeegee down, vac on
- f. Utilize a detail mop to absorb scrubbing solution from corners, baseboards and all squeegee trails
- g. Repeat c - f as required to complete job
- h. Wipe down all baseboards if needed

3) Recoat Method (with mop)

- a. Establish start/stop points
Choose start location as the furthest point from the door/water source
- b. Place plastic liner in seal/finish bucket
- c. Utilize rayon mop with looped ends and tailband
 1. Shake mop out in a plastic liner to prevent manufacturing lint (off mop) from adhering to the floor
- d. Dip mop in finish bucket, remove excess finish by pressing mop with a 1/4 turn into wringer



Floor Care Methodization: Industrial

Performing Preventative, Interim or Restorative Cleaning Tasks

Floor Care Procedures

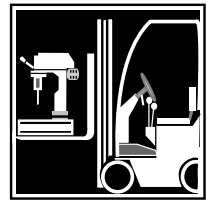
System 3 – Deep Scrub & Recoat (continued)

3) Recoat Method (with mop)

e. Apply finish



1. Outline or “picture frame” area on first coat and/or last coat
2. All coats should be thin and without dry streaks
3. Allow at least 25-35 minutes to dry between coats
4. Allow 1 hour dry time or more between coats on very humid days



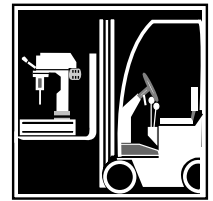
Restrooms

Restrooms Materials Requirement Planning (MRP)

A. Materials Requirement Planning



- a. Clean rags
- b. Mop buckets and wringers
- c. Cotton wet mops and handles
- d. Dust mop and dustpan
- e. "Wet Floor" signs
- f. Trigger spray bottles
- g. Toilet bowl swabs
- h. Waste receptacle liners
- i. Gloves, goggles and appropriate shoes
- j. Products
 - 1) Disinfectant cleaner
 - 2) Toilet bowl cleaner
 - 3) Hand soap
 - 4) Creme cleanser
 - 5) Glass cleaner
 - 6) Paper towels and tissue paper
 - 7) Drain maintainer



Industrial Cleaning Procedures

Restrooms



A. Obtain Supplies

- 1) Prepare all equipment and supplies required
- 2) Proceed to cleaning destination.



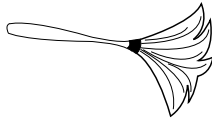
B. Prepare area properly

- 1) Knock on door and announce your intention to enter. If restroom is occupied, wait until it is empty. When empty, enter.
- 2) Immediately post "Restroom Closed" sign.
- 3) Wear proper clothing.



C. Toilet bowls and urinals

- 1) Remove all urinal screens and blocks from respective receptacles and flush before cleaning.
- 2) Evacuate water from bowl. Using a bowl mop, press water over the trap.
- 3) Apply toilet bowl cleaner and disinfectant to toilet and urinal interiors only. Allow disinfectant cleaner to stand while other cleaning tasks are completed.



D. Dust all areas – high to low

- 1) Clean all dust from ceiling fans and vents, utilizing appropriate dusting tool.
- 2) Dust tops of doors and stall partitions.
- 3) Sweep floor, remove all loose trash, and empty into waste receptacles.
- 4) Use a putty knife to remove gum from floors and partitions.



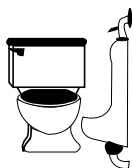
E. Wet cleaning

- 1) Clean all light fixtures, mirrors, and glass surfaces with glass cleaner.
- 2) Wipe all partitions, tops and bottoms of doors, doorknobs, receptacles, and dispensers with disinfectant solution.
- 3) Spot clean all other above-ground surfaces with disinfectant solution.



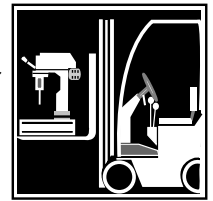
F. Clean wash basins

- 1) For most effective cleaning, use creme cleanser, mild phosphoric acid solution or disinfectant solution.
- 2) Clean interior of sink, allowing disinfectant solution a full ten minutes of contact time for efficacy.
HINT: High foaming cleaners will make cleaning and contact time easier.
- 3) Spot clean exterior surfaces, faucets, pipes and under basins. Wipe all metal surfaces dry.
- 4) Check operation of faucets and drains.
- 5) Treat drains with bacterial digestant/deodorant.



G. Clean toilet bowls and urinals – inside

- 1) If required, add an additional ounce of toilet bowl cleaner and disinfectant to bowl mop prior to cleaning.
- 2) Clean the rim and waterline areas carefully and move into the exposed trap area.
- 3) Check under rim for missed mineral deposits and rust stains with lip light.
- 4) HINT: Acid bowl cleaners are required for mineral deposits and rust. Routine cleaning can include non-acid cleaners.



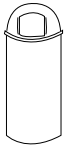
Industrial Cleaning Procedures

Restrooms (continued)



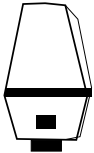
H. Clean toilet bowls and urinals – outside

- 1) Spray outside and bottom surfaces with non-acid solution and wipe.
- 2) Wipe toilet seat with non-acid disinfectant solution.



I. Clean and empty all waste receptacles

- 1) Remove can liners from receptacles, wash the interiors and exteriors with disinfectant solution, and replace can liner.
- 2) Empty and clean sanitary napkin receptacles with disinfectant solution. Replace liner to comply with OSHA Bloodborne Pathogen Standards.
- 3) Never use your hand to press trash overflow down and into the waste receptacle.



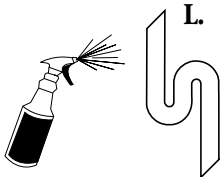
J. Replenish all supplies

- 1) Refill hand soaps, toilet tissue, towels, deodorizers, and sanitary napkin dispensers.
- 2) If restroom has condom dispensers or other ancillary dispensers, make sure that these are refilled.
- 3) Check operation of all dispensers and report malfunctions properly.
- 4) Check urinal screens, deodorant blocks, and gel/mist deodorants.



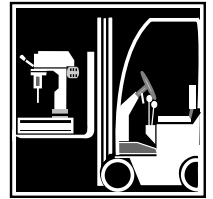
K. Damp mop

- 1) Clear area of supply cart and equipment.
- 2) Start in the area farthest from the door and work towards the door.
 - a. Make sure to mop with fresh, clean mop water.
 - b. HINT: Using the Neutral pH Disinfectant Cleaner can provide effective bacteria elimination with odor counteraction.
 - c. A mild acidulous tile cleaner may be required for grout lines on quarry tile floors.
- 3) Place mop in solution and wring out, leaving mop damp. When mopping floor area around toilets and urinals, mop thoroughly and wring out often. Change solution when necessary.



L. Odor counteraction

- 1) Spray bacteria-based odor counteractants liberally around toilets and urinals and let air dry.
- 2) Pour four ounces into each floor drain before leaving the area.
- 3) HINT: Saturating a paper towel with bacterial digestant deodorant and placing into waste receptacle will aid in counteracting odors long after you have left the restroom.



Industrial Cleaning Procedures

Locker Rooms/Showers ²



A. Materials Requirement Planning (MRP)

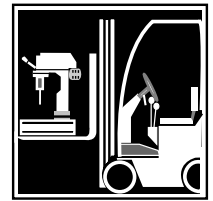
- a. 50 ft. hose with proper connection
- b. Foam gun nozzle
- c. All angle scrub brush/extension handle
- d. Squeegee scrubber sponges and/or hand pads
- e. Putty knife
- f. Clean rags
- g. Boots/treads/overshoes
- h. Safety goggles
- i. Gloves
- j. "Wet Floor" sign
- k. Clean towel
- l. Utility suit
- m. Multi acid disinfectant cleaner concentrate

B. Steps to cleaning locker rooms/showers

- 1) Fill any soap dispensers.
- 2) Remove any disposable materials.
- 3) Spot clean any heavily soiled areas.
- 4) Fill foam gun reservoir with high foaming, multi-acid shower room disinfectant cleaner.
- 5) Apply or insert appropriate dilution control mechanism.
- 6) Attach foam gun to hose and hose to nearest water source.

* Before beginning, please refer to product's personnel protective equipment instructions and wear equipment as needed before mixing chemicals.

- 7) Spray section of wall no more than one arm span's width. Begin at the floor and move upward until you reach the ceiling. Move to next section.
- 8) After spraying walls, spray ceiling in a similar manner, making sure the entire ceiling has been sprayed with disinfectant solution.
- 9) Spray entire floor with disinfectant solution.
- 10) Using an all angle scrub brush, start at the first area that was sprayed with the disinfectant and scrub all contact surfaces. Wash from bottom up.
- 11) Dismantle foam gun from hose and replace with standard spray nozzle. Starting with the ceiling and working down the walls, rinse thoroughly with water, paying special attention to any metal fixtures. Rinse from top down.
- 12) Rinse off non-slip boots.
- 13) Disconnect hose from water source and roll up.
- 14) Return all cleaning equipment to proper storage area.



Industrial Cleaning Procedures

Milling Machine, Lathes & Drill Press



A. Materials Requirement Planning (MRP)

- a. Industrial Strength Degreaser
- b. Glass, Plastic and CRT Cleaner
- c. Soft cloth
- d. Soft paint brush
- e. Cleaning rags/Shop towel
- f. Vacuum (electric or air operated shop vac)
- g. Thin lubricant/Surface oil and rag



Milling Machine, Lathes & Drill Presses Cleaning & Sanitation

B. Preparation: Always wear proper protective gear

- 1) Clear machine of all work and remove tools
- 2) Brush or vacuum off ways, chucks, travel arms, and related surfaces of any metal chips or debris.
- 3) Utilize industrial strength degreaser to remove greases and oils from painted surfaces.
- 4) Never spray (industrial degreaser) directly to unpainted surfaces without consulting owner's manual first. (i.e.: ways, chucks, travel arms)
- 5) Apply Glass, Plastic and CRT Cleaner to safety guards.
- 6) Never use ammoniated glass cleaners on safety guards or CNC control panels as it will pit, haze and fog the surface.
- 7) Apply glass, plastic and CRT Cleaner to the CNC control panel and screens, wipe dry with soft cloth.
- 8) Apply a thin film of oil to ways upon completion of cleaning.



Surface Plates



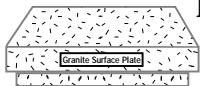
A. Materials Requirement Planning (MRP)

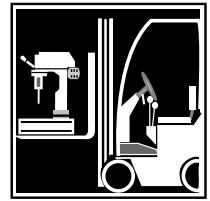
- a. Glass, Plastic and CRT Cleaner
- b. Soft cloth
- c. Soft paint brush

Surface Plates

B. Preparation

- 1) Clear surface plate of all instruments.
- 2) Utilize soft cloth or brush to remove any large debris.
- 3) Apply glass, plastic and CRT Cleaner to surface plate.
- 4) Wipe dry with a soft cloth.





Industrial Cleaning Procedures

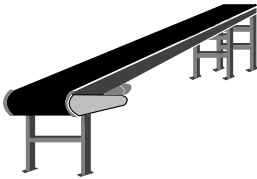
Conveyor Cleaning



- A. Materials Requirement Planning (MRP)
 - a. Vacuum
 - b. Blower
 - c. Brush
 - d. Broom/Dust Pan
 - e. Cloth
 - f. Lubricant
 - g. Degreaser

Conveyor Cleaning - always wear proper personal protective equipment

B. Preparation



- 1) Lock-out all power to conveyor.
- 2) Remove all work from conveyor.
- 3) Block movement of any new work from entering to this section of conveyor.
- 4) Blow, vacuum, or brush, all loose debris from conveyor.
- 5) Sweep, blow, or vacuum, loose debris from floor under conveyor-collect and discard.
- 6) Wipe down conveyor with Industrial Strength Degreaser or solvent, when necessary (i.e.: glue, paint, ink removal).
- 7) Lubricate bearings, etc.
- 8) Lubricate guards, comers, etc., with an approved spray-on lubricant. (Hint: often times a water-based defoaming agent is appropriate for this application).

Offices - always wear proper personal protective equipment

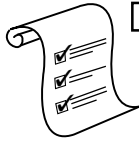
A. Preparation

- 1) Clean from dry to wet, top-down and farthest point from the door towards the door.
- 2) Perform dusting procedures.
- 3) Empty trash containers.
- 4) Vacuum/dust mop (see: Vacuum/dust mop floor care procedures and MRP).
- 5) Clean restroom(s) (see: Restroom procedures and MRP).
- 6) Damp mop. (See: Damp mopping procedures and MRP).
- 7) Utilize glass, plastic, and CRT Cleaner to clean computer monitor(s).
- 8) Utilize glass, plastic, and CRT Cleaner or disinfectant cleaner on all other hard surfaces EXCEPT WOOD!
- 9) Utilize furniture polish on true wood surfaces.



Industrial Cleaning Procedures

Shipping & Receiving Docks

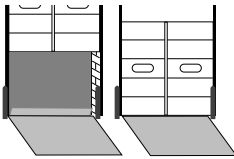


A. Materials Requirement Planning (MRP)

- a. Dust mop
- b. Wall wash
- c. Cloth
- d. Degreaser
- e. Glass, plastic & CRT cleaner

Shipping & Receiving Docks - always wear proper personal protective equipment

B. Preparation



- 1) Sweep, vacuum, or dust mop area.
- 2) Degrease walls (See: Wall washing procedures).
- 3) Degrease Floors (See: floor care methodization; Industrial).
- 4) Spot clean & degrease dock plates & doors with Industrial Strength Degreaser.
- 5) Use glass, plastic, & CRT Cleaner on door, windows, and mirrors.

Bradley Fountain Sinks

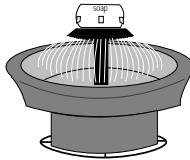


A. Materials Requirement Planning (MRP)

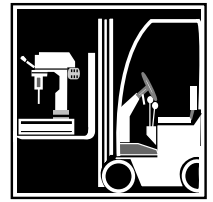
- a. Acidic Disinfectant Creme Cleanser
- b. Clean cloth/towels
- c. RTU or Concentrate Disinfectant Cleaner
- d. Supply stock

Bradley Fountain Sinks - always wear proper personal protective equipment

B. Preparation



- 1) Apply Disinfectant Creme Cleanser to interior surface and agitate with brush, rag, or scrubbing pad.
- 2) Rinse with clear water.
- 3) Apply disinfectant cleaner to all surfaces both interior and exterior including soap dispensers, knobs, etc. wipe and rinse, if necessary.
- 4) Re-stock paper towels and hand soap.
- 5) Be sure to leave floor surrounding sink clean and dry.



Industrial Cleaning Procedures

Dip Tanks and Parts Washers

- A. Materials Requirement Planning (MRP) - See: Equipment Manual

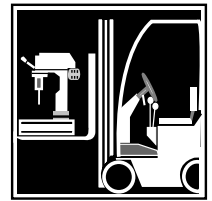


Dip Tanks and Parts Washers - always wear proper personal protective equipment

B. Procedure



- 1) Consult your Equipment Manual, Supervisor and Plant Safety Director before proceeding.
- 2) Place all "Caution Signs" as required - NEVER perform cleaning tasks on a running, moving, or electrified unit.
- 3) Utilize Industrial Strength Degreaser to clean exterior of unit and floor surrounding it.
- 4) Change Dip Tank Cleaning fluid as required.
- 5) Clean all interior surfaces including skim bar, agitator, material handling units, jets and brushes with appropriate cleaner/degreaser.
- 6) Replace all components to their original positions and settings.
- 7) Dispose of old fluid in accordance with Federal and Local Government Guidelines.



Industrial Cleaning Procedures

Cafeteria



A. Remove Scraps

Remove products, wrapping paper and all packaging material from areas to be cleaned. Sweep floor with appropriate broom.



B. Cover Electrical Equipment

Cover and unplug all wrapping or weighing equipment, as they may be water sensitive.

C. Collect Hand Tools

Put all scrapers, knives, trays, hand saws, grinding parts, etc., in sink for manual washing.

- 1) Utilize USDA A-1 pot & pan wash in first compartment of 3-stage sink.
- 2) Utilize USDA D-2 Sanitizer in the 3rd compartment of 3-stage sink.



D. Cleaning Procedure

- 1) Use Foaming Degreaser USDA A-1.
- 2) Mix 1:20 with warm water.
- 3) Apply with foam gun, pressure sprayer or deck brush to all surfaces to be cleaned, such as walls, tables, counters, saws, etc.
 - a. Walls - Clean from bottom to top.
 - b. Floors - Agitate, let stand, squeegee to drain, or pick up with wet dry vac. Rinse, squeegee or wet dry vac.
- 4) Allow foaming degreaser to remain on the surfaces for five minutes to loosen fats, oils, grease and other hard-to-remove soils.
- 5) Agitate if necessary.
- 6) Thoroughly rinse all surfaces being cleaned with the warmest water available. Rinse walls from top to bottom.
- 7) Squeegee excess water into drains.



E. Sanitizing Procedure



- 1) Use Sanitizer/Virucidal Disinfectant USDA D-2.
- 2) Mix 1:500 with water (1 oz. to 4 gallons water).
- 3) Apply with sanitizing gun or pump-up sprayer to all surfaces previously cleaned.
- 4) Allow all food contact surfaces to air dry - no potable water rinse required.



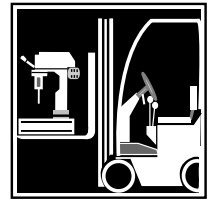
F. Add Drain Maintainer

- 1) Use Liquid Life Forms Bacterial Digestant/Deodorant.
- 2) Pour 4 oz. of Drain Maintainer twice weekly in each drain.
- 3) Pour 4 oz. daily into grease traps.

Display Cases

A. Remove all Product from Display Case

B. Remove all Shelving, Storage Pans, and Stage to 3-Sink Area



Industrial Cleaning Procedures

Cafeteria (continued)

C. Cleaning Procedure

- 1) Use Foaming Degreaser USDA A-1.
- 2) Mix 1:20 with warm water.
- 3) Apply with foam gun, pump-up sprayer or spray bottle to all surfaces to be cleaned.
Clean from bottom to top.
- 4) Allow foam degreaser to remain on the surfaces for five minutes to loosen fats, oils, grease and other hard-to-remove soils.
- 5) Agitate if necessary.
- 6) Thoroughly rinse all surfaces being cleaned with the warmest water available, from top to bottom.

D. Sanitizing Procedure

- 1) Use Sanitizer/Virucidal Disinfectant USDA D-2.
- 2) Mix 1:500 with water (1 oz. to 4 gallons water).
- 3) Apply with sanitizing gun or pump-up sprayer to all surfaces previously cleaned.
- 4) Allow all food contact surfaces to air dry – no potable water rinse required.
- 5) Clean any glass with Film Free Glass Cleaner.



E. Return all caution sign's and equipment to appropriate storage locations

- 1) Ensure that all chemicals are re-filled.
- 2) Ensure that all equipment is cleaned and rinsed out.



Industrial Cleaning Procedures

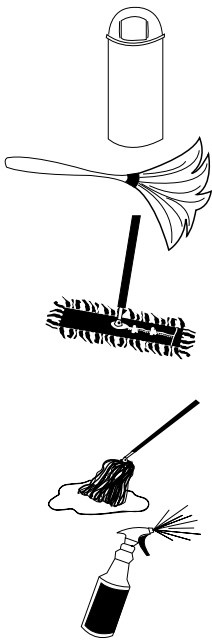
Lobby



A. Materials Requirement Planning (MRP)

- a. Mop bucket with wringer
- b. Wet mop handle with 20 oz. looped-end banded mop
- c. Set of "Wet Floor" signs
- d. Putty knife
- e. Dust mop
- f. Dustpan and brush
- g. Hand pail
- h. Clean cloths
- i. Spray window cleaner
- j. Spray polish
- k. Approved germicidal detergent solution
- l. Vacuum equipment

B. Steps to cleaning the lobby



- 1) Empty ashtrays and wastebaskets - Clean all receptacles. Remove dated newspapers and damaged magazines.
- 2) Dust furniture - dust tables, legs of chairs, lamps, etc. Damp-wipe plastic-covered furniture. Vacuum cloth upholstery.
- 3) Dust window sills and light fixtures.
- 4) Dust mop floor - Use dust mop of an appropriate size. Treat with a water-base treatment when working in heavier soil load area. Start at one end of area. Hold mop handle at an approximately 45 degree angle. Push mop straight ahead. Avoid lifting mop from floor or moving it backwards. Remove gum with putty knife. Pivot at end of area and mop in opposite direction. Overlap about ten inches.
- 5) Clean floor - Either damp mop using damp mop procedure or vacuum using vacuuming procedure.
- 6) Polish - Polish metals and furniture. Use appropriate polish and clean cloths.
- 7) Spot clean soiled areas - Check walls and doors. Spot clean only areas that are no larger than your hand. Notify supervisor if complete wall washing is necessary. Clean windows. Clean telephone.
- 8) Straighten furniture - Arrangement should conform to established pattern.

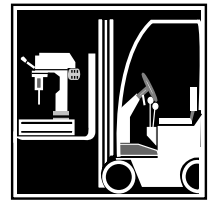


Industrial Cleaning Procedures

Infirmary



- A. Materials Requirement Planning (MRP)
 - a. Supply of clean cloths
 - b. Hand pads
 - c. Wet/dry vacuum
 - d. Mop bucket with double wringer
 - e. Disposable glove
 - f. Hand pail (3 gallon)
 - g. Approved germicidal detergent solution appropriate to the area
 - h. All-purpose spray cleaner solution
 - i. Plastic liner
 - j. Wet mop handle and looped-end banded wet mop
 - k. Door stop
 - l. Germicidal spray solution
 - m. Rinse water
 - n. Antimicrobial hand soap and Instant hand sanitizer
 - o. "Wet Floor" signs
 - p. Step ladder



Industrial Cleaning Procedures

Infirmary

Infirmary cleaning steps

- A. Remove soiled linen from infirmary
- B. Remove trash and debris
- C. Clean overhead lights (if applicable)
- D. Clean exam table
- E. Clean room furnishings
- F. Clean walls
- G. Clean infirmary room floors
- H. Arrange furnishings
- I. Inspect for cleaning errors



You should clean every room using a pattern. Moving clockwise around the room from high places to low places is usually best to ensure that nothing is overlooked. "This also ensures that each area is not re-contaminated" and that cleaning one area does not re-contaminate another area.



Put on rubber gloves to protect your hands from coming in direct contact with blood, body substances, contaminated linen, and debris.

A. Step 1 - Remove soiled linen from Infirmary



- 1) Gather the soiled linen from the infirmary and place in a plastic bag for laundering.
- 2) Take plastic liners with soiled linen to the laundry hamper.

B. Step 2 - Remove trash and debris



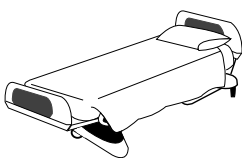
- 1) Place in double red bio-hazard plastic liners, and tie the top of the outer red bag of waste.
- 2) Lift the bag and carry it out of the infirmary to the pick-up point for this trash.

C. Step 3 - Clean overhead lights (if applicable)



- 1) Get a ladder and set it up under the lights.
- 2) Place your pail of detergent-germicide on the ladder utility platform.
- 3) Clean the overhead lights, starting at the top part of the ceiling attachment. Clean the stem, all surfaces of the piping, and all surfaces of the light housing.
- 4) Rotate the lights, and clean the light fixture lenses. It is not unusual to find blood stains on the light fixture. Wipe all lens surfaces clean and then clean the second overhead light in the room.

D. Step 4 - Clean the exam table



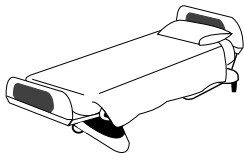
- 1) Start by cleaning the table pad with your cleaning cloth dipped and squeezed in the five-quart pail containing detergent-germicide solution.
- 2) Clean the table pads on all sides, being careful not to miss any stains.
- 3) Clean the exam table attachments, wiping all sides and ends clean.



Industrial Cleaning Procedures

Infirmary (continued)

D. Step 4 - Clean the exam table (continued)

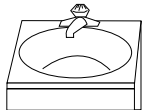


- 4) Store attachments back on the table in the proper location.
- 5) Wipe the metal surfaces under the pads, being careful to wipe all contours of the metal surfaces.
- 6) Notice that you can re-assemble the parts of the exam table as you clean them.
- 7) After the table has been wiped clean, replace the table pad on the table.
- 8) Be sure to rinse and wring the cleaning cloth often in the detergent-germicide solution as you wipe the outer surfaces and base sections of the table. The exam table is one of the most critical items in cleaning the infirmary. Therefore, take the time to do a good job.

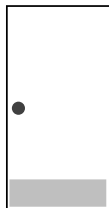
E. Step 5 - Clean room furnishings



- 1) Clean the stainless steel tables and trays with your cloth dipped and wrung in the detergent-germicide solution.
- 2) Be careful to do a thorough job, including wiping the legs.
- 3) Clean the stainless steel back-up table and do not forget to clean the shelf.
- 4) Clean the instrument stands, which contain the trays that doctors or nurses use to lay out their instruments. Wipe both sides of the trays, as well as the entire unit.
- 5) Be sure to rinse and hand-wring your cleaning cloth often in the detergent-germicide solution.
- 6) Clean all parts and surfaces of the waste liner stands, including the lower parts of the stand.
- 7) Change the solution in your five-quart pail when you see the liquid getting contaminated as you rinse your cleaning cloth.
- 8) When cleaning items like a portable stand, be sure to lift and clean under items stored there.
- 9) Clean the stools from top to bottom. Some of these are very close to the actual examination and can be sprayed with blood.
- 10) Clean the chairs found in the infirmary. Wipe all surfaces clean, including the bottom chair supports.
- 11) Clean cabinets with your detergent-germicide.



F. Step 6 - Clean walls



- 1) Walls should be cleaned if there is visible contamination.
- 2) They should be cleaned on a regular schedule and not less than once a week.
- 3) Rinse and wring your mop head in a bucket of detergent-germicide solution.
- 4) Walls should be cleaned in an even pattern using four-foot strokes. It will take practice not to miss any areas.
- 5) Wash from the bottom up and rinse from the top down.



Industrial Cleaning Procedures

Infirmary (continued)

G. Step 7 - Clean Infirmary floor



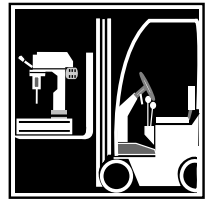
- 1) Start by clearing half of the emergency room of all furnishings and post wet floor signs.
- 2) Since all these items are mounted on casters, the job of moving things can be done in minutes. Remember the original placement of all the items you have moved.
- 3) Dip the wet mop head into the detergent-germicide solution, and wring out the excess solution. Go to the far corner of the floor and begin mopping.
- 4) Mop in a pattern that will ensure that all parts of the floor are thoroughly mopped.
- 5) Dip and wring the mop head in the bucket often to keep your mop head as clean as possible.
- 6) Use a "figure eight" pattern when mopping a floor. This ensures better coverage of the mopping solution.
- 7) If you see blood stains, they can easily be removed by your mopping action. Once you have covered the entire area with your mopping solution, let the solution stand for ten minutes. This will ensure that the cleaning chemical will have time to kill all germs present on the floor.
- 8) The best method available to remove the floor cleaning solution is with a wet vacuum cleaner. These machines save time and eliminate the possibility of re-contamination. Use the wet-vac wand to pick up all of the solution on the floor, moving the wand forward to the wall, and then pulling back toward your feet to remove the solution from the floor.
- 9) If you do not have a wet-vac, use two freshly laundered mops and a two-bucket system: one bucket will contain the cleaning solution and the other bucket will contain clear rinse water. Use a separate mop for each bucket.
- 10) When you are through with that side of the floor, move all infirmary furnishings back on the cleaned area of the floor in preparation for clearing the other half of the floor.
- 11) Mop around furniture legs, if necessary, to clean the entire floor.
- 12) Rinse and wring your mop head often and continue the mopping until the entire infirmary floor has been disinfected.
- 13) Again, you will use the wet-vac to pick up the solution off the floor.
- 14) When you are through, move your mop and bucket out the door.



H. Step 8 - Arrange furnishings



- 1) You should put infirmary equipment back in their "start positions".
- 2) If you have any doubts as to where things should be placed, ask your supervisor who will instruct you on the proper arrangement of all furnishings.
- 3) Next, put a clean sheet on the exam table and place a second sheet over the center of the table. Check with your supervisor if you have any questions about your duties in the infirmary.
- 4) Put a clear liner in the trash stand, along with a second bag to ensure double thickness plastic bags in each stand.
- 5) Do the same with the red liner in the trash stand, and again, place a second liner in the first to ensure the double bagging of all infectious waste.



Industrial Cleaning Procedures

Infirmary (continued)

I. Step 9 - Inspect for cleaning errors



- 1) Always take the time to look around the infirmary you have just cleaned to make sure nothing was missed. Look at the overhead lights, the walls, etc. If you see something that still needs to be cleaned, clean it before you leave.
- 2) When you do leave, you should have the confidence that you have provided a sanitary environment for the next exam.
- 3) Take off your rubber gloves and throw them away in the assigned container.
- 4) Remove wet floor signs, if the floor is dry.
- 5) Wash your hands in the prescribed manner.



Industrial Cleaning Procedures

Wall Washing



A. Materials Requirement Planning (MRP)

- a. Wall wash tool
- b. Wall wash head
- c. Mop bucket & wringer
- d. Wall wash cleaning solution
- e. Rinse water
- f. Personal protective equipment
- g. Safety signs

B. Steps to Wall Washing



- 1) Obtain proper equipment. Include proper safety PPE as standard equipment
- 2) Prepare approved cleaner to appropriate dilution while wearing personal protective equipment (PPE).
- 3) Post "Caution" signs
- 4) Clear area to be cleaned of furniture, equipment and wall hangings (Do not spray towards electrical boxes, outlets or equipment.)
- 5) Grossly soiled areas may require a stronger spot-type cleaner prior to wall washing
- 6) Immerse wall washing tool into cleaner bucket
- 7) Wring wall washing tool into cleaner wringer
- 8) Clean an area not wider than your arm-span (including tool) beginning at the bottom of the wall, overlapping previous pass
 - a. Change to fresh solution at least once per room
 - b. Change wall wash head at least once per room
 - c. If rinsing is required, rinse from the top down
- 9) Replace all furnishings to original positions
- 10) Replace all chemicals and equipment to appropriate storage areas
 - a. Refill any chemicals required
 - b. Clean all equipment



Industrial Cleaning Procedures

Handwashing ³ (continued)

Handwashing is the single most important procedure for preventing nosocomial infections. Handwashing is defined as “a vigorous, brief rubbing together of all surfaces of lathered hands, followed by rinsing under a stream of water.” Although various products are available, handwashing can be classified simply by whether plain soap and/or detergents or antimicrobial-containing products are used. Handwashing with plain soaps or detergents (in bar, granule, leaflet, or liquid form) suspends microorganisms and allows them to be rinsed off. This process is often referred to as mechanical removal of microorganisms. Handwashing with antimicrobial-containing products kills or inhibits the growth of microorganisms. This process is often referred to as chemical removal of microorganisms.

When gloves are worn, handwashing is still recommended because gloves may become perforated during use and because bacteria can multiply rapidly on gloved hands.

Recommendations from the Center for Disease Control (C.D.C.)

A. Handwashing indications

- 1) In the absence of a true emergency, personnel should always wash their hands:
 - a. Before performing invasive procedures. (Category 1) *
 - b. Before taking care of particularly susceptible patients, such as those who are severely immunocompromised and newborns. (Category 1)
 - c. Before and after touching wounds, whether surgical, traumatic, or associated with an invasive device. (Category 1)
 - d. After situations during which microbial contamination of hands is likely to occur, especially those involving contact with mucous membranes, blood or body fluids, secretions, or excretions. (Category 1)
 - e. After touching inanimate sources that are likely to be contaminated with virulent or epidemiologically important microorganisms. These sources include urine-measuring devices or secretion-collection apparatuses. (Category 1)
 - f. After taking care of an infected patient or one who is likely to be colonized with microorganisms of special clinical or epidemiologic significance; e.g., multiple-resistant bacteria. (Category 1)
 - g. Between contact with different patients in high-risk units. (Category 1)
- 2) Most routine, brief patient-care activities involving direct patient contact other than that discussed in A.1 above do not require handwashing; e.g., taking blood pressure. (Category 2)
- 3) Most routine hospital activities involving indirect patient contact do not require handwashing; e.g., handing a patient medications, food, or other objects. (Category 1)



B. Handwashing technique

For routine handwashing, a vigorous rubbing together of all surfaces of lathered hands for at least **10 seconds, 15 seconds preferred**, followed by thorough rinsing under a stream of water. (Category 1)

* See definitions of categories on following page

³ Information taken from *Guideline for Handwashing and Hospital Environmental Control*
U.S. Dept. of Health and Human Services - Center for Disease Control



Industrial Cleaning Procedures

Handwashing ³ (continued)

C. Handwashing with plain soap

- 1) Plain soap should be used for handwashing unless otherwise indicated. (Category 2)
- 2) If bar soap is used, it should be kept on racks that allow drainage of water. (Category 2)
- 3) If liquid soap is used, the dispenser should be replaced or cleaned and filled with fresh product when empty. Liquids should not be added to a partially full dispenser. (Category 2)

D. Handwashing with antimicrobial-containing products (Health-Care Personnel Handwashes)

- 1) Antimicrobial handwashing products should be used for handwashing before personal care for newborns and when otherwise indicated during their care, between patients in high-risk units, and before care of severely immunocompromised patients. (Category 3)



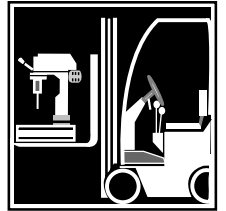
Ranking Scheme for Recommendations of the C.D.C.

Category 1 Measures in Category 1 are strongly supported by well-designed and controlled clinical studies that show their effectiveness in reducing the risk of nosocomial infections, or are viewed as effective by a majority of expert reviewers. Measures in this category are viewed as applicable for most hospitals – regardless of size, patient population, or endemic nosocomial infection rates.

Category 2 Measures in Category 2 are supported by highly suggestive clinical studies in general hospitals or by definitive studies in specialty hospitals that might not be representative of general hospitals. Measures that have not been adequately studied but have a logical or strong theoretical rationale indicating probable effectiveness are included in this category. Category 2 recommendations are viewed as practical to implement in most hospitals.

Category 3 Measures in Category 3 have been proposed by some investigators, authorities, or organizations, but, to date, lack supporting data, a strong theoretical rationale, or an indication that the benefits expected from them are cost-effective. Thus, they are considered important issues to be studied. They might be considered by some hospitals for implementation, especially if the hospitals have specific nosocomial infection problems, but they are not generally recommended for widespread adoption.

³ Information taken from *Guideline for Handwashing and Hospital Environmental Control*
U.S. Dept. of Health and Human Services - Center for Disease Control



4 Steps to a Healthier World



Wet your hands and wrists with warm water.



Apply cleaner to hands and wrists (2" above exposed area) and lather at least 15 seconds. Include back of hands, between fingers and around nails and cuticles.

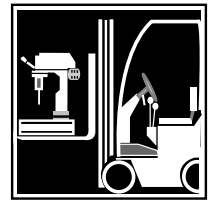


Rinse thoroughly with comfortably hot water for at least 15 seconds. Rinse from wrists toward the finger tips.



Dry hands with a single-use towel or air dryer. Use towel to turn off water and open exit door to protect your hands from resoiling.

Be Healthy, Be Clean, Wash Your Hands



Industrial Cleaning Procedures

Maintenance, Carts, Closets, Equipment & Supplies ¹



A. Materials Requirement Planning (MRP)

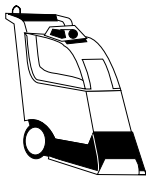
- a. Supply closets
- b. Cleaning equipment
- c. Chemical supplies
- d. Supply item care
- e. Dust mops
- f. Wet mops
- g. Buckets and wringers
- h. Housekeeping carts
- i. Power equipment
- j. Floor machines
- k. Vacuum cleaners
- l. Auto-scrubbers

B. Step 1- Supply closets

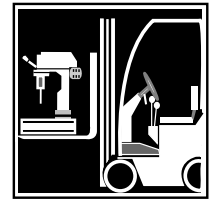


- 1) It is the responsibility of the housekeeper to keep an adequate amount of supplies properly stored in the housekeeping supply closet and also to care for, clean and store the various items of equipment that are used in your daily housekeeping work.
- 2) Keep a list in your storage area of supplies needed.
- 3) Schedule weekly checks of your housekeeping supply closet in order to make sure that you will always have adequate supplies on hand.
- 4) Keep a list in your storage area of what you need.
- 5) Allow for some "lead time" when ordering additional supplies from your supervisor.
- 6) Stock your supplies in a neat and orderly fashion with the items most frequently used nearest at hand.
- 7) When you enter your storage area or closet, you should know exactly where everything is located to prevent searching for supplies.
- 8) Supplies should be used efficiently and economically. Avoid wasting liners, paper towels, toilet paper, stripping chemicals and finish, other cleaning chemicals, and so on. Treat the supplies as though you had personally purchased them.
- 9) You should not skimp on using supplies, but always use only the proper amount as indicated.
- 10) Always wear safety goggles (glasses) and gloves when mixing chemicals. Your care will pay off in years of accident-free employment.

C. Step 2 - Cleaning equipment



- 1) Proper storing of your equipment is your responsibility.
- 2) A large amount of money has been invested in labor-saving cleaning devices which your hospital requires to ensure that the hospital environment is aseptically and esthetically clean, safe, and sanitary.
- 3) To store and protect the large investment of cleaning supplies and equipment, your hospital has cleaning closets equipped with hooks, racks, shelves, sinks, and other items located in each department or on each floor.



Industrial Cleaning Procedures

Maintenance, Carts, Closets, Equipment & Supplies ¹ (continued)

C. Step 2 - Cleaning equipment (continued)



- 4) Your hospital may also have a central equipment room, perhaps in the housekeeping supervisor's area. Equipment is brought to this area at the end of each shift.
- 5) Storage areas should be cleaned regularly and should be set up with a special place for every cleaning item. This includes regular space for hanging brooms and mops, shelves for cleaning agents and brushes, areas for power-operated equipment and attachments, and facilities for washing and cleaning these items.

D. Step 3 - Chemical supplies



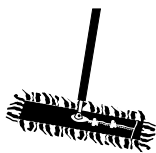
- 1) Periodically, plastic spray bottles will need your attention. Clean the exterior with a damp rag.
- 2) A trigger-type spray bottle must be taken apart regularly and cleaned to avoid clogging.
- 3) The contents of these bottles and all cleaning chemical containers should always be labeled clearly.
- 4) Store these bottles in a clean, dry place.

E. Step 4 - Supply item care



- 1) Caution signs should be cleaned at least daily, and they should not receive any rough treatment in their use.
- 2) Never have dirty cloths lying around, as they are a disease and safety hazard.
- 3) Discard greasy or oily rags promptly.
- 4) Be careful of the dustpan edges. Careless handling or laying heavy objects on the pan can cause the edges to become bent or ragged.
- 5) The dustpan should be cleaned with detergent-germicide solution to ensure disinfection.
- 6) Small items such as a putty knife should always be wiped clean of moisture and debris after each day's use.

F. Step 5 - Dust mops



- 1) Dust mops should not be used to pick up liquids.
- 2) Remove loose dust and debris from the mop head with a vacuum, or comb the mop head with a dust pan brush over the trash container on your cart.
- 3) Do not shake a dust mop head on any floor in hospital rooms or corridors.
- 4) Dust mop heads should be placed in plastic bags and sent to the hospital laundry when they become very dirty or after each shift.

G. Step 6 - Wet mops



- 1) Wet mop heads need some special attention. Soak new mop heads in a bucket of warm, clear water for several minutes to remove fabric sizing and to toughen the mop head fibers.
- 2) When using a wet mop head, never allow it to remain in the bucket of solution except when being used. This will prevent rotting of strands or "souring."
- 3) When you have finished using a wet mop head, wring it out as dry as you can, and then place it into a plastic liner and send it to the laundry for a thorough cleaning.



Industrial Cleaning Procedures

Maintenance, Carts, Closets, Equipment & Supplies ¹ (continued)



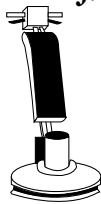
H. Step 7 - Buckets and wringers

- 1) Keep buckets and wringers in good repair. Use a bucket and wringer of the proper size for the mop head.
- 2) Remove any loose mop head yarn, string or foreign matter that may have become tangled in the wringer.
- 3) Empty all buckets of their contents after each use, and avoid storing buckets with water or cleaning solution in them.
- 4) Wash and scrub all surfaces of the bucket and wringer, rinse with warm water and wipe dry.
- 5) Keep parts of the bucket casters oiled so they rotate freely. A drop of oil on the wringer mechanism will also keep the wringer in good shape.
- 6) Store the wringer in the “release” position only. Report any defects in the wringer to your supervisor.



I. Step 8 - Housekeeping carts

- 1) Wipe shelves at least once a week in order to keep them clean.
- 2) See that the entire cart is cleaned with disinfectant-detergent solution at least once a week.
- 3) Keep the casters running freely by applying a drop of oil to each caster.
- 4) Keep the cart neatly stocked with all supplies and equipment for the next shift.

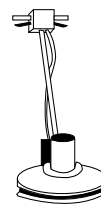


J. Step 9 - Power equipment

- 1) Power-driven equipment must be given the same care and attention as your automobile. Keep your cleaning equipment clean and free of dirt; keep it oiled; keep screws and nuts tight.
- 2) Operate the equipment so as not to dent the metal housing, and check the power cords for defects and wear. Never abuse your cleaning equipment.
- 3) Always follow manufacturer's instructions for operation and maintenance.
- 4) If you are ever in doubt as to how to use a piece of powered cleaning equipment, ask your housekeeping supervisors for technical advice.

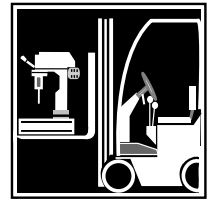


Do Not Use Faulty Equipment!



K. Step 10 - Floor machines

- 1) Floor machines, also referred to as “buffers,” should receive regular cleaning and routine maintenance.
- 2) Always disconnect the power machine from the wall socket while performing any routine maintenance.
- 3) Always remove brushes and pads from the drive chuck after each use.
- 4) Clean the floor pads in your deep sink with warm running water and then hang to dry for the next shift's use.
- 5) Rinse out all drive blocks and brushes in a similar manner and store them in a dry place.
- 6) Tilt the floor machine back on its handle. Using a cloth dipped in a disinfectant-detergent solution, wipe the inside housing and the entire exterior clean.



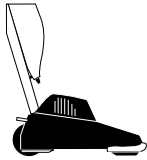
Industrial Cleaning Procedures

Maintenance, Carts, Closets, Equipment & Supplies ¹ (continued)

K. Step 10 - Floor machines (continued)

- 7) Remove any strands or debris from the wheels and wipe clean.
- 8) At least once a week, put a drop of oil on each wheel bearing to keep the wheel running freely. If you ignore this, wheels can lock over time from foreign matter collecting on the shaft.
- 9) Use your cloth to wipe the entire length of power cord free of any dried floor stripper and dirty water spots.
- 10) Store the floor machine upright with its power cord neatly wrapped around the storage brackets on the handle.

L. Step 11 - Vacuum cleaners



- 1) To replace a belt, unplug the unit from the wall socket and turn the unit over to expose the bottom housing of the vacuum.
- 2) Push the two retaining clips to free the belt cover.
- 3) Pull up the drive beater brush and remove it from the housing; remove dirt, lint and debris found in this area.
- 4) Use your cleaning cloth dipped in disinfectant-detergent to wipe out the inside of the housing.
- 5) Take the new belt and insert the drive brush in the loop, or center of the belt.
- 6) Replace the drive beater brush, ringed with the new belt, and push it back into the retainers.
- 7) Pull the belt back and wrap it around the drive shaft of the motor.
- 8) Make sure the lower portion of the belt follows the arrow on the housing.
- 9) Be careful not to put this belt on backwards – doing so would cause the beater bar to rotate backwards.
- 10) To finish, place the cover back on the housing and push the clips back in place.
- 11) Turn the unit over and plug it in to be sure it operates properly.
- 12) Disposable vacuum bags should be emptied after each shift in order for the vacuum cleaners to operate at peak efficiency.
- 13) Check the power cord plug and wire for cracks and defects. Report any noticeable damage to your supervisor.
- 14) Once a week, wipe the entire length of power cord clean with your disinfectant-detergent, and neatly wrap the cord on the storage brackets of the vacuum.
- 15) Wipe all outer metal surfaces of the vacuum cleaner with your cloth dipped in disinfectant-detergent.
- 16) Lastly, put a drop of oil on the vacuum wheels to keep them running freely, and wipe the wheels clean with your cloth.



Industrial Cleaning Procedures

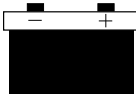
Maintenance, Carts, Closets, Equipment & Supplies ¹ (continued)

M. Step 12 - Automatic scrubbers



- 1) Battery-operated power equipment, like an automatic floor scrubber, needs special care and maintenance. See owners manual before proceeding.
- 2) These units compare in price to that of compact automobiles. Because of that, they should be treated with utmost care and according to manufacturer's instructions.
- 3) It is advisable to grease the casters once every week. Oil all moving parts, such as the control bars, squeegee control rods, pressure points and hinges once every month.
- 4) Make sure that each drive wheel tire is inflated to the recommended tire pressure. Unequal tire pressures can adversely effect the total operation of the machine.
- 5) Drive brushes should be removed and cleaned after each use. The drive brush mechanism needs to be adjusted and lubricated according to the manufacturer's instructions.
- 6) The squeegee assembly should be adjusted and lubricated. The reversible squeegee blades also need regular cleaning and adjusting.
- 7) An automatic scrubber has a solution tank, a recovery tank, and filters that should be flushed and cleaned on a regular schedule.

Battery maintenance



- 1) When working with batteries, leave the battery compartment covered up and work in a well-ventilated area. Do not wear rings, because they can become welded to metal wrenches if a live terminal is accidentally touched.
- 2) Check the fluid level in the battery cells at least weekly. The battery caps are easily removed by pressing the ends of the white plastic extensions.
- 3) Check the electrolyte status of each battery cell with a hydrometer every 15 operating hours.
- 4) Periodically, check all battery cable and wiring for signs of damage or wear. Replace as needed. Once a month, remove all batteries from your machine. Clean all batteries, battery tray, and battery compartment with a solution of baking soda and water.
- 5) On the bottom of the battery compartment cover is a battery wiring diagram. Follow this diagram when you put the battery wires on the terminals. To prevent corrosion, apply a film of grease or Vaseline to battery lugs and bolt studs. Do not reverse connections when servicing or replacing the batteries.

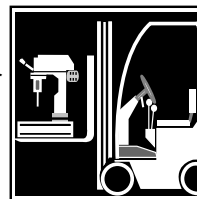
Battery Charger

- 1) When actively using an automatic scrubber, you will use a battery charger to re-charge the batteries. With the charger unplugged from the electrical wall outlet, find the main connector that is marked "Connect To Charger." Firmly push the two connectors together. When laying the charging cables across the batteries, be careful not to allow the metal parts of the connectors touch any battery terminals. Set the battery charger control according to the rate of current desired. After charging, remove the charger plug from the wall outlet and disconnect the charging cable. Reconnect main battery terminals.



Glossary of Terms

Abrasive	A substance used to scour, scrub, smooth or polish a surface.
Absorbent	Able to take in and make part of an existent whole.
Acid	A water-soluble substance with a pH less than 7.
Alkali	A chemical with a pH greater than 7.
Auto Ignition Temperature	The lowest temperature in which a gas will spontaneously ignite without a spark or flame.
Boiling Point	The lowest temperature (at standard pressure) at which a liquid becomes a vapor.
Bradley Fountain	Circular granite hand-washing sink utilized in industrial plants to accommodate multiple personnel.
Bridgeport Machine	Metal fabrication machine which requires regular maintenance.
Catalyst	A substance which influences a chemical reaction.
Caustic	Strong alkaline substance which irritates the skin.
“Cide”	Agents with the ability to kill micro-organisms.
Degreaser	A product specifically formulated to remove grease, oil and soil.
Dip Tank	Refers generally to degreaser (water/solvent based) utilized in semi-automated parts washing processes.
Emulsification	The action of breaking up greases into small particles which are suspended in solution.
Flammability	The capacity of a material to ignite easily and burn rapidly.
Flash Point	The lowest temperature in which the vapor from a product will ignite.
Fungicide	A chemical agent that destroys fungi.
Inorganic	A substance not made of the combination of carbon and hydrogen.
JIT	Acronym: Just In Time
MBO	Management by objectives - A formal “grade card” for industrial management personnel which largely includes quality, safety, productivity and housekeeping. A management theory whereby employees set their objectives with help of management.
MRO Area	An area, sometimes referred to as “stores”, whereby janitor's supplies and other non-production commodities are stored and requisitioned.



Glossary of Terms (continued)

OSHA	The Occupational Safety Health Administration which establishes and enforces laws related to worker safety.
Oxidation	To combine with oxygen; typified by the rusting of a metal.
pH	A simple chemical scale which expresses the degree of acidity or alkalinity of a solution (0-14).
Reactivity	Refers to a chemical's stability and its potential to react violently with water.
Solubility	The tendency of the material to dissolve into another.
Surface Plate	Highly polished and critical quality control surface from which gauges are measured.
Surfactant	A surface active agent which increases the emulsifying, foaming, dispersing, and wetting properties of a product.
VOC	(Volatile Organic Compounds) The components within a formulation that contribute to ozone formation, which is a pollutant and causes smog, etc., in metropolitan areas.
Viscosity	The thickness of a liquid.
Volatile	The part of a product which evaporates during drying.
Water Hardness	A measure of the amount of metallic salts found in water.
Wetting Agent	A chemical which reduces the surface tension of water.