



Basic Cleaning Techniques

Training Library
Workbook



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Section 1.

Introduction



Learning to become a professional custodian or housekeeper can be a challenging and rewarding career. Your job is important to the image of the facility and to the health of all who enter the building.

As with every job, you must first master the basics before you are able to tackle the more complex cleaning tasks and procedures. By following the lessons provided in this training you will be able to save time with your cleaning efforts, increase productivity, work smarter not harder and be on your way to becoming a valuable cleaning professional.

This Betco Training Library module, will focus on basic cleaning techniques for cleaning maintenance professionals.

This module will cover:

Safety

Preparation

The Professional Cleaner's Basic Information

Specific cleaning tasks

- Wiping
- Dusting
- Policing
- Trash removal
- Dust mopping
- Operation of powered cleaning equipment
- Window cleaning
- Polishing
- Disinfection
- Cleaning of equipment and tools

The Custodial Closet

Dilution Control

Daily, Detail and Project Cleaning

The purpose of this overview is to provide a basic knowledge on popular daily cleaning tasks. It does not cover complete cleaning applications or techniques for entire rooms or surfaces.

Section 2.

Safety



Read all product labels for areas of use, dilutions and precautions. Never use a product that does not have a complete label attached.

Read and understand MSDS sheets.



Wear the proper Personal Protective Equipment (PPE) which will be noted on product labels and MSDS sheets. Insure the PPE items are in proper working condition.



Practice Universal Precautions with all unknown liquids or bodily fluids.



Place caution signs prior to starting any cleaning task.



Report any unsafe conditions to your supervisors prior to starting any cleaning task.

Section 3.

Preparation



When preparing for any cleaning task, be sure that you have all the necessary equipment and chemicals for each procedure that will be performed by using a supply checklist.

Review specific tasks you will perform. Make sure you have the chemical, equipment and supplies needed and you understand the procedures. Ask questions if you are unsure!

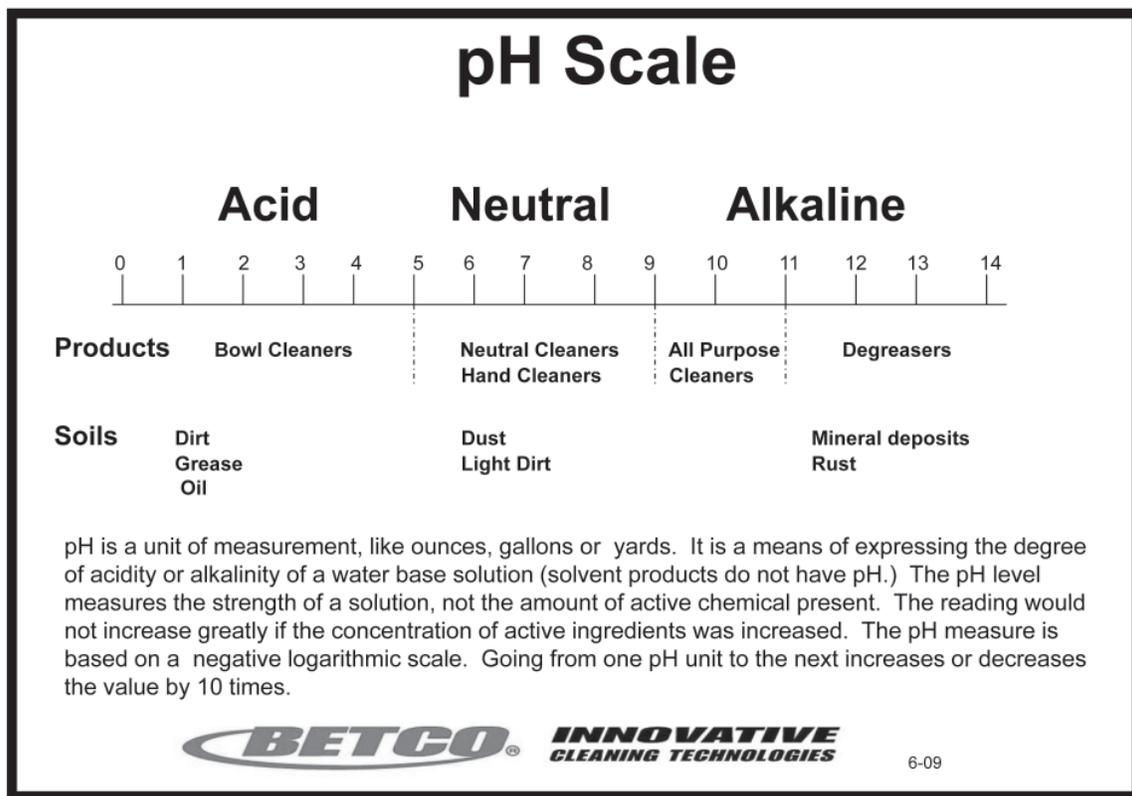
Take note of inventory levels and place orders for needed items.

Section 4.

The Professional Cleaner's Basic Information

The pH scale measures the acidity and alkalinity of a water based cleaner. The pH of chemicals is measured on a scale from 0 to 14. The closer a substance's pH is to zero, the more acid it is. The closer it is to 14, the more alkaline it is. A product that falls in the middle of the scale with a pH of about 7 is considered chemically neutral.

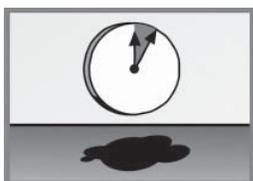
Acid cleaners, like toilet bowl cleaners, are designed to clean alkaline soils, like rust or mineral deposits. Alkaline cleaners are formulated to clean acidic soils, like oils, greases, fats and dirt. The neutral cleaners are used for light dirt and dust removal on surfaces that will not be harmed by water.





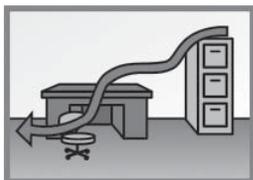
All cleaning chemicals have 4 characteristics –

- **Wetting** – on dirty surfaces, surface tension prevents water from getting into or under the dirt. Cleaners will break the surface tension to assist in soil removal.
- **Penetration** – after breaking the surface tension of the soil, it next penetrates the soil
- **Emulsification** – dissolving the soil into small particles for removal
- **Rinsing** – after emulsifying the soil, the cleaner will suspend the soil for easy removal.



Certain situations will affect the results of a cleaner -

- **Time** – allow products to stay in contact with the surface and the soil to increase cleaning and for disinfecting. Always refer to the product label.
- **Abrasion** – the use of pads, brushes and equipment will aid in the removal of soils.
- **Chemical dilution** – the use of dilution control equipment will insure the proper dilution of cleaners and limit the negative impact on surfaces and personnel. Always refer to the product label.
- **Temperature** – most cleaning products will be used with cool water versus hot water. Always refer to the product label.



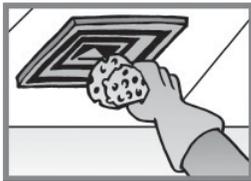
How to work smarter, not harder –

- o Clean from top to bottom, bringing the soil to the lowest level for removal.
- o Clean from dry to wet. Use a dust mop before using a wet mop. Begin cleaning from the dirtiest area to the cleanest area.
- o Clean from the back of the area to the front or exit area.
- o Clean in the same direction each time, clockwise or counter clockwise to increase efficiency and effectiveness.
- o Use the proper chemical and equipment for the job. Let the chemical and the equipment do the work.
- o Finish one task before starting another task.
- o Use proper lifting procedures – lift with your legs, keep your back straight, avoid twisting or bending while carrying objects hold the objects close to your body and ask for help.
- o Report unsafe conditions immediately.



Section 5.

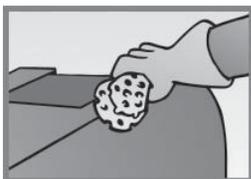
Basic Cleaning Tasks



- **Wiping** - There are two basic techniques to wiping; **spray and wipe** and **damp wipe**. Usually, your chemical label will recommend the best method based on product or procedure. To **spray and wipe**, simply spray the surface to be cleaned with an ample amount of product. If using a disinfectant allow for the proper contact time before wiping. For **damp wipe** procedure spray the sponge or cloth with the appropriate cleaner. Wipe in a consistent pattern such as up and down then back and forth, to ensure that you cover an entire surface. Be sure to overlap your strokes. Typically, you will use a **spray and wipe** approach for surfaces that have visible soil such as urinals, toilets or spots on walls. **Damp wiping** is most effective for surfaces that need a lighter cleaning such as desk tops and counter tops. **Damp wiping** is also best when chemical residue should be limited such as on phones and drinking fountains.
- **High dusting** - Use a high dust tool to gather dust and debris from the top of ceiling and wall fixtures and corners several times a week. Work clockwise around the room. Be careful not to over extend your arms. If necessary carefully use a ladder or stepping stool. When finished shake the tool into a trash receptacle.
- **Dusting** - If dust is visible on furniture it is most effective to use a cleaning polish product. Always be sure to follow manufacturer's label recommendations for cleaning/polishing surfaces. Spray a clean cloth with the polish and begin damp wiping the top of the furniture and work your way down. Pay close attention to furniture legs and spindles where dust and dirt can build up. Micro fiber is a more effective tool versus regular cloths or feather dusters. Remember to work clockwise around the room to ensure you do not overlook anything.
- **Policing** - **Policing** is the frequent cleaning of highly visible areas of your facility such as restrooms, entrance-ways and busy hallways. Being alert for debris on floors and carpets, spills, fingerprints on glass and doors, overflowing trash receptacles and low paper supplies enhances the facilities appearance and shows that you care about the impression it makes. Everyone in the department should be in the habit of **policing**. Keeping a facility clean requires teamwork and professionalism on your part.



- **Trash removal** - Empty smaller trash cans into collection container. Replace the liner if needed, spot clean/deodorize trash cans and return the container to original position. Empty the collection container when full using proper safety precautions.
- **Dust mopping** – micro fiber is the preferred material; as simple as it seems, **dust mopping** is a very important step to floor care maintenance. Lifting the surface dirt helps prevent it from getting deep down into the finish, it also prepares it for wet cleaning. Use the appropriate size mop head for the floor space. Larger dust mops help you cover more floor in a shorter time and smaller dust mops work better in smaller rooms with obstacles. Starting at the furthest corner and working toward the door, hold the mop handle at approximately a 45 degree angle and begin to push the mop forward. Be sure to overlap your strokes and shake the mop frequently to unload the debris. If necessary remove gum and stickers with a putty knife during this procedure. When finished, gather the piles of debris with a dust pan and counter brush. Be sure to clean the mop with a stiff brush and shake it vigorously in a trash receptacle. If the mop head is extremely soiled it should be laundered or changed.
- **Wet mopping** - Before proceeding to **wet mopping** be sure to dust mop to gather loose soil and debris. Prepare the appropriate cleaning solution in the mop bucket with a wringer. In most instances you will either prepare a neutral or all purpose cleaning solution. Always, post caution signs before wet mopping. Place the mop in the cleaning solution; wring it out until the mop is only damp. Start at the furthest corner and work toward the door, mop the area lengthwise along the base boards, then use a figure eight stroke on the balance of the area. Be careful not to splash baseboards this could leave dirty residue. Once the mop bucket solution becomes visible soiled change the solution. When finished rinse the bucket wringer and allow to air dry. All mops should be rinsed thoroughly or laundered and hung to dry. Never use a musty or malodorous mop to clean.
- **Equipment** – discuss proper operating techniques for specific equipment (auto scrubber, floor machine, wet/dry vac, burnisher, vacuum, extractor). Run the equipment before starting your daily tasks and report any problems.



- **Window cleaning** - When it is necessary to clean windows, start by gathering your supplies and preparing your glass cleaning solution. Follow the label instructions for dilution ratios. You may want to lay out a floor covering. Post caution signs. Position your ladder, if necessary. Thoroughly wet the glass with a sponge or brush to loosen all dirt. Use a sponge or cloth to go around the glass against the frame to pick up dirt you may have pushed around the frame. With the squeegee tilted at an angle so that two inches of rubber touches the glass, start at the top corner of the glass and draw the squeegee along the top of the glass. This is called “cutting the water”. Wipe the squeegee blade with the cloth. Next, start on the dry surface at the top of the glass and next to the frame. Draw the squeegee down to about three inches off the bottom of the glass then wipe the blade. Repeat until you have covered the entire surface of the glass. Be sure to overlap each stroke. Do not put too much pressure on the squeegee. To finish the strip at the bottom of the glass, soak up the excess water with a sponge or cloth. Cut the water at the glass by starting at the top of the water and cutting a two inch strip down along the edge of the glass to the bottom. Wipe the squeegee across the bottom of the glass. Dry the water from the frame, but be sure not to touch the glass. Using a dry mop, wipe any excess from the floor to prevent a slippery floor.

- **Polishing** – could be combined with dusting but normally will be a project task. Always determine the type of surface to polish (wood, metal, plastic). Use only chemical products recommended the surface your are polishing. Microfiber will be the cloth of choice for polishing.

- **Disinfection** – germs are living organisms that can't be seen without a microscope. Germs can live in soil, move on air currents or be spread by contact with people. Disinfectants kill 99.999% of germs. Sanitizers kill 99.9% of germs. **Sterilization kills 100% of germs.** Always mix disinfectants according to label instructions and allow to dwell per label instructions for proper cleaning and disinfecting.

- **Cleaning of equipment and tools** - After finishing with any cleaning job it is important to clean your equipment and store all equipment and tools in a clean dry place. By taking care of the equipment in your facility it lasts longer, works more dependably and makes a good impression on you and your department. Report any problems with equipment or tools and any unsafe working conditions noticed and take the item out of service.

Follow manufacturer's instructions for operation and maintenance. Use a maintenance log to track routine and restorative maintenance procedures.

Section 6.

The Custodial Closet



- Only store cleaning chemicals, tools and equipment that will be used on a regular basis.
- Less is better. Avoid duplication of products and insure all chemicals are properly labeled.
- Have a place for everything and keep them in the same place each time. Store heavier items on lower shelves.
- Clean this area just like any other area of the facility.
- Inspect the closet on a regular basis for proper supplies, working condition of dilution control devices and overall organization.
- Insure everyone knows where the MSDS sheets are.

Section 7.

Dilution Control



Following dilution ratios and measuring with a proper measuring device when mixing chemical solutions is crucial. Chemical Management Systems are usually available for the chemicals that you use on a daily basis. These systems ensure that dilution rates are correct. Using them can make your job faster, safer and easier.

If a Chemical Management System is not installed in your facility or not available for the product you will be mixing, be sure that you understand dilution ratios and how to properly mix chemicals. Never “glug” chemicals when mixing, this can cause the product to not work effectively and may create unsafe situations. Only mix chemicals according to manufacturer’s instructions. Please remember that using more chemical does not mean that it will give better results.

Section 8.

Daily, Detail and Project Cleaning



Setting up a cleaning schedule for an entire facility can be a big challenge. Breaking down cleaning tasks into **daily, detail and project cleaning** can assist your department with the upkeep of the facility.



By understanding how tasks are scheduled for your building you become a major part of the quality of cleanliness practiced by your department. **Daily cleaning tasks** involve procedures such as mopping, vacuuming, trash removal and restroom cleaning. **Detail cleaning** are tasks that are done approximately once a month and usually include; wiping vents, washing walls, carpet bonneting and scrub and recoating floors. **Project cleaning tasks** are performed 1 - 2 times a year and usually involve strip and recoating floors, carpet extracting, wood floor refinishing and furniture cleaning.



Pay close attention to how these tasks are scheduled for your facility. Help your supervisor keep track of jobs that could be performed more or less often. Because some of these procedures happen only a few times a year, take a few minutes to brush up on the techniques before performing the job. The Betco Training Library includes a great deal of specific information on daily, detail and project cleaning procedures such as Life Cycle of Floor Care, Life Cycle of Carpet Care and Restroom Cleaning.

Conclusion:

The job that you do is very important to the image of your facility and to the well being of the people who come through the doors every day. Be proud of the skills you are developing and know that you truly make a difference in creating a safe, clean and healthy environment.

Appendix:

Supply Checklist

Chemical Products

- All purpose cleaner _____
- Air freshener _____
- Bowl/urinal cleaner _____
- Degreaser _____
- Deodorant _____
- Disinfectant _____
- Drain maintainer _____
- Dust mop treatment _____
- Extraction cleaner _____
- Floor Finish _____
- Finish restorer _____
- Finish stripper _____
- Glass cleaner _____
- Graffiti remover _____
- Hand cleaner _____
- Hand sanitizer _____
- Neutral cleaner _____
- Peroxide cleaner _____
- Polish _____
- Shower cleaner _____
- Spotting solution _____
- Top scrub product _____

Supplies:

- Facial tissue _____
- Paper towels _____
- Sanitary napkins _____
- Sanitary disposal bags _____
- Toilet tissue _____
- Trash liners _____
- Urinal screens/blocks _____

PPE:

- Gloves _____
- Goggles _____
- MSDS sheets _____

Tools:

- Bowl swabs _____
- Broom and dust pan _____
- Bucket and wringer _____
- Deck brush _____
- Duster _____
- Dust cloth _____
- Dust mop _____
- Floor squeegee _____
- Finish mop _____
- General mop _____
- Properly labeled spray bottles _____
- Pumice stick _____
- Pump usprayer _____
- Putty knife _____
- Window squeegee _____

Equipment:

- Auto scrubber _____
- Burnisher _____
- Extractor _____
- Floor machine _____
- Grout Scrubber _____
- Spotting machine _____
- Vacuum cleaner _____
- Wet/dry vac _____

Appendix:

How to Calculate Dilution Ratios:

Dilution ratios are expressed in two ways, either 1 to a given number (such as 1:64) or in terms of ounces per gallon (2 ounces per gallon).

If you need to calculate the ounces per gallon remember that there are 128 ounces in a gallon, so a 1 ounce per gallon product dilutes at a ratio of 1:128 and $\frac{1}{2}$ and $\frac{1}{4}$ ounce products dilute at 1:256 and 1:512 respectively. A common method to determine ounces per gallon is to take 128 and divide it by the ratio number. For instance, a product that has a dilution ratio of 1:256 would be calculated like this: $128 \div 256 = .5$ ounces per gallon

Some of the more common ratios are provided in the table below:

Ounce per gallon	Dilution Ratios
$\frac{1}{4}$ ounce per gallon	1:512
$\frac{1}{2}$ ounce per gallon	1:256
1 ounce per gallon	1:128
2 ounces per gallon	1:64
4 ounces per gallon	1:32
5 ounces per gallon	1:26 (1:25.6 rounded)
6 ounces per gallon	1:21 (commonly considered 1:20)
8 ounces per gallon	1:16
12 ounces per gallon	1:10

If a product has a ratio of 1:128 you would mix one part of the product to 128 parts of water. That means that the gallon of product will make 129 total gallons of solution because to mix it properly you would take the gallon of product and add 128 gallons of water which equals 129 total gallons. A 1:256 product makes 257 gallons of end use solution and a 1:64 makes 65 gallons of solution. The total amount of solution that a given container of product makes is commonly referred to as the yield.

Metric calculations such as liters can be calculate, you just need to convert the metric figures to gallons or ounces prior to starting. Common metric volume measurements and there English equivalents are listed below:

- 1 quart = 0.946 mL
- 1 gallon = 3.785 liters
- 1 liter = 0.264 gallons
- 4 liters = 1.056 gallons

Take a few minutes to complete the following exercises.

1. How many ounces per gallon are equivalent to Deep Blue Glass cleaner at 1:30?
2. How much ready to use (RTU) gallon yield can be made from a gallon of Deep Blue glass cleaner at a dilution ratio of 1:30?
3. How many ounces per gallon are equivalent to pH7 All Purpose Neutral Cleaner at 1:64?
4. How much RTU gallon yield would you get from a five gallon pail of pH7Q Ultra at 1:256?

Certification Exam

The following exam will certify you as an official Basic Cleaning Techniques Specialist. Please take the time to complete the exam. Fax or mail completed exam to:

Betco Corporation
P.O. Box 3127
Toledo, OH 43607
Fax # 419-321-1954
Attn: Marketing

Exams that are returned to Betco with a grade of 80% or better will receive a certificate of completion. Exams can also be taken online at www.betco.com

Please fill out the following information and return it with your completed exams:

Your Name: _____

Company Name: _____

Address: _____

City _____ State _____ Zip Code _____

Phone: _____

E-mail address: _____

Signature: _____

Certification Exam – Basic Cleaning Techniques

IEHA Course Number: 010710x Credit Hours: .20 CEU's

1. Always store heavier items on the top shelf.
 - True
 - False

2. Before using any chemical you should:
 - Test it on an inconspicuous area
 - Check the expiration date
 - Read the MSDS and manufacturer's label

3. When cleaning you should:
 - Clean from top to bottom
 - Use a pattern
 - Damp wipe all surfaces
 - Both a and b

4. When mopping:
 - Soak the mop head until it is very wet
 - Start from the furthest corner and work toward the door
 - Spray the mop with mop treatment
 - Both a and c

5. What are the two basic techniques to wiping?
 - Sponge wiping and cloth wiping
 - Damp wiping and spray and wiping
 - Spray wiping and cloth wiping

6. When using a disinfectant you should:
 - Allow for the proper contact time
 - Always use a sponge
 - Wipe immediately

7. Which wiping method would you most likely use when cleaning a toilet?
 - Sponge wiping
 - Damp wiping
 - Spray and wiping

8. Learning to use the correct wiping technique can save time, decrease product usage and limit chemical exposure.
 - True
 - False

9. When dusting furniture:
 - Start at the largest furniture and work toward the smallest
 - Wipe from top to bottom working clockwise around the room
 - Post caution signs
 - All of the above

10. Taking the squeegee along the top of the glass from side to side after wetting is referred as:
 - Slicing the solution
 - Preparing the squeegee
 - Cutting the water

11. A pH of 12 is an alkaline cleaner?
 - True
 - False

12. What are the characteristics of cleaner?
 - Wetting
 - Penetration
 - Emulsification
 - Rinsing
 - All of the above

Certification Exam – Basic Cleaning Techniques

IEHA Course Number: 010710x Credit Hours: .20 CEU's

13. It is a best practice to work in the same direction when cleaning an area?
- True
 - False
14. Before wet mopping a floor you should always:
- Post caution signs
 - Dust mop
 - All of the above
15. When wet mopping:
- Swing the mop back and forth in wide deliberate strokes
 - Use a figure 8 stroke
 - Hold the handle firmly in a 45 degree angle
16. The frequent cleaning of highly visible areas of a facility is referred to as:
- Policing
 - Patrolling
 - Trafficking
17. How many ounces per gallon do you need of a product that's dilution ratio is 1:16?
- ¼ ounce
 - 4 ounces
 - 8 ounces
 - none of the above
18. The yield for a gallon of product that has a ratio of 1:128?
- 128 gallons of end-use product
 - 129 gallons of end-use product
 - 256 gallons of end-use product
19. According to this training, detail cleaning is usually performed how often?
- Once a month
 - Twice a year
 - As much as possible
20. After learning more about the basic cleaning techniques you should be:
- More knowledgeable
 - Proud
 - Helpful in creating a safe and healthy work environment
 - All of the above

For More Information, Contact:



**INNOVATIVE
CLEANING TECHNOLOGIES**

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