**Detailed Chemical Guidelines**

**Note: Except in the case of our special work teams, “restricted” means custodial team supervisors will do paperwork to temporarily issue and track the product. Team supervisors will be responsible for getting the product back in less than a week. In all cases, restricted products will only be used where the preferred product is ineffective when used properly.**

**General and Restroom Cleaning Products**

**Dispensing system**

* **Hillyard Arsenal Jr. System** (a wall mount unit in most areas; a mobile unit where a wall mount is not practical)
	+ Tamper-resistant; spill-proof; meter tips in container; backflow protection.

**All purpose neutral cleaner** (for use in spray bottles or in automatic scrubbers)

* **Hillyard Arsenal Top Clean**
	+ Green Seal certified and part of Arsenal dispensing system
* **Hillyard Super Shine All** (alternate neutral cleaner useful on certain floor types or where an alternating neutral cleaner other than water is desired to prevent film build up)
	+ Green Seal certified and part of Arsenal dispensing system

**Neutral, no-rinse disinfectant cleaner** (for routine use in restroom cleaning and for use elsewhere only if disinfection is required)

* **Hillyard Arsenal Jr. Vindicator+** (for spray spray bottle application)
	+ EPA registered disinfectant and part of Arsenal dispensing system
* **Hillyard Re-Juv-Nal C3** (for use with Hillyard C3 restroom cleaning machines)
	+ EPA registered disinfectant in spill-proof, tamper-resistant, self-metering containers
* **Hillyard Re-Juv-Nal in gallon jug** (for use with Kaivac restroom cleaning machines)
	+ EPA registered disinfectant

**Peroxide-based cleaner with solvents** (for periodic use in restroom cleaning and general use elsewhere where deeper cleaning or color-safe peroxide bleaching/brightening is desired.)

* **Hillyard Arsenal Jr. Suprox** (for use in spray bottles)
	+ Green Seal certified and part of Arsenal dispensing system
* **Hillyard Suprox C3** (for use with C3 restroom cleaning machines)
	+ Green Seal certified in spill-proof, tamper-resistant, self-metering containers
* **Hillyard Suprox** in gallon jug (for use in Kaivac restroom cleaning machines)
	+ Green Seal certified

**Heavy duty Restroom cleaner**  (for removal of mineral deposit or soap scum build up on restroom fixtures, bowls, sinks, and shower walls.)

* **Hillyard Arsenal Jr. Green Select Bathroom Cleaner** (for use in spray bottles)
	+ Green Seal certified and part of Arsenal dispensing system
* **Hillyard Green Select Bathroom Cleaner for C3**
	+ Green Seal certified in spill-proof, tamper-resistant, self-metering containers
* **Hillyard Green Select Bathroom Cleaner** in gallon jugs (for Kaivac machines)
	+ Green Seal certified

**Glass Cleaner** (for use on glass and other surfaces where streaking is not desired such as stainless steel, plastics, etc.)

* **Hillyard Arsenal Jr. Green Select Glass Cleaner**
	+ Green Seal certified and part of Arsenal dispensing system

**Heavy duty cleaner and degreasing cleaner** (for quick removal of greasy soils and some graffiti; also can for use on greasy floors as in meat lab)

* **Hillyard Arsenal Jr. Green Select Degreaser Cleaner**
	+ Green Seal certified and part of Arsenal and C3 systems

**Toilet bowl cleaner**

* **Hillyard Mild Bowl and Porcelain Cleaner**
* Restricted use only for excessive accumulation of mineral deposits in bowls.
* Not Green Seal certified but has mild non-toxic, non-caustic phosphoric acid-based formula

**Floor Project and Carpet Care Products**

**Floor Care products: Stripper**

* **Hillyard Green Select Stripper**
	+ Green Seal certified

**Floor Care products: Finish/Sealer**

* **Hillyard One Plus Zinc Free Finish**
	+ Green Seal Certified
* **Hillyard Seal 341**
	+ Used only as an exception after review by the Manager of Custodial Operations.
	+ Used, after Managerial approval, where use of Hillyard One Plus by itself has proven ineffective in maintaining a durable and workable floor finish.
	+ Used, after Managerial approval, on some large concrete floors as base coat under Hillyard One Plus in order to extend stripping cycle
	+ Not Green Seal certified but often provides a more durable finish on hard surface porous floors which results in less frequent need for restorative stripping.

**Floor Care products: Restorer**

* **Hillyard Restorer**
	+ Green Seal standards are not established for this type product.
	+ Zinc free product in Arsenal dispensing system for maintaining finish gloss and extending durability of floor finish.

**Other Floor and Carpet Care products**

* **Hillyard Defoamer II**
	+ Green Seal standards are not established for this type product.
	+ A non-corrosive, phosphate free formulation containing no caustics or acids designed to eliminate foam in carpet cleaning equipment, automatic floor scrubbers, restroom cleaning machines, and other wet pick-up equipment.
* **Hillyard Arsenal Neutralizer**
	+ Green Seal standards are not established for this type product.
	+ Phosphate free chemical in Arsenal spill-proof, tamper proof container for use in neutralizing and removing alkaline residues left behind by from stripper, ice melt, or carpet detergents.

**Carpet Care products**

* **Hillyard Arsenal Carpet Pre-Spray and Extraction**
	+ Green Seal Certified and available in Arsenal dispensing system.
* **Hillyard Take Down**
	+ Restricted use only.
	+ Uses safe, natural bacteria and enzymes to eliminate stubborn odors.
* **Hillyard Suprox**
	+ Green Seal Certified and available in Arsenal dispensing system.
	+ Mixes at higher dilution on low flow setting on Arsenal dispensing system for use as a spray cleaner or carpet spotter.
* **Other carpet spotting agents and enzyme cleaners**
	+ Restricted use only for spots where the Arsenal Pre-Spray and Extraction cleaner is ineffective.
	+ Most of these chemicals are used only by members of SWAT (the special work assignment team) or the Floor Crew.

**Special Cleaning Products**

**Chrome cleaners / metal polishes**

* **Hillyard EP Stainless Steel Polish**
	+ Restricted use only where problems exist in maintaining or restoring the luster of stainless steel or other metal surfaces with green certified chemicals such as green certified glass cleaner.
	+ Green Seal standards are not established for this type of product but it has the following environmentally preferable traits:
		- Water-based chemistry—non-flammable
		- No-buff formula dries to a non-oily film
		- Biodegradable (SCS certified)
		- 98% VOC free
		- Packaged in can made of 50% recycled steel
* **Hillyard Brass and More Wipes**
	+ Restricted use only where problems exist in maintaining or restoring the luster of brass or other metal surface with green chemicals, and where the Hillyard EP Stainless Steel Polish is ineffective.
	+ Not Green Seal certified, but has a low-ammonia polishing formula with no harsh abrasives

**Graffiti Remover**

* **Hillyard Arsenal Jr. Green Select Degreaser Cleaner**
	+ Green Seal certified and part of Arsenal systems
		- Replaces Hillyard Assurance HD Spray and Wipe Cleaner
* **Magic Eraser** (or other brands of melamine-foam-based cleaning pads)
	+ This material works through micro-abrasive action rather than chemical action to remove certain graffiti.
* **Hillyard Graffiti Remover**
	+ Restricted use only where the Green Select Degreaser or Magic Eraser have proven ineffective.

**Odor Counteractants**

* **Hillyard Take Down**
	+ Restricted use only
	+ Uses safe, natural bacteria and enzymes to eliminate stubborn odors

**Maintenance chemicals**: Chemicals listed in this section are not used for cleaning so they don’t quite come under the parameters of our “Green Cleaning” program but will be found in custodial closets.

* **WD40**
	+ Used only for routine lubrication of the Kaivac spray gun.

**Other chemicals:**  Members of our special teams (SWAT, the Floor Crew, and garage cleaning team) may use various other special cleaning chemicals for various non-routine tasks such as mold remediation, carpet spot removal, oil spills, etc.

**Addendum on Vinegar: Uses and Misuses**

**Mixing directions**

* **For use in spray bottle as an acid cleaner:** 1 part vinegar to 3 parts water. In a quart bottle, that would mean adding 8 ounces (1 cup) of vinegar to 24 ounces (3 cups) of water.
* **For use in mop bucket as a neutralizer:** ½ cup per gallon

**Proper use of vinegar**

* **When mixed in a spray bottle in the strength noted above**, vinegar can be used for removal of mineral deposits or soap film on glass, water fountains, restroom fixtures, and most other surfaces. In such cases it would be used instead of other acid cleaners such as Green Select Bathroom Cleaner.
	+ As with other acid cleaners, a set time may be required for most efficient use and the surface should be rinsed afterwards to prevent deterioration by the acid.
* **When mixed in a mop bucket in the strength noted above**, vinegar can be used for removal of soap or ice melt film. It can also be used as a rinse aid when stripping. In such cases it would be used instead of Arsenal Neutralizer. Mixing the vinegar stronger than recommended in a mop bucket can slowly deteriorate certain floor surfaces so do not mix stronger than recommended.

**Misuse of vinegar**

* **Vinegar should not be used as an all-purpose cleaner**. Vinegar does not breakdown or efficiently remove most oily or greasy soils which are the vast majority of all soils we find. Vinegar can tend to spread oily soils around and make the surface look cleaner. Greasy soils can serve as nutrient sources for microbes.
* **Vinegar should not be used as a disinfectant cleaner.** Vinegar when full strength (i.e., a 5% ascetic acid solution) does have disinfectant qualities. However, vinegar also has an odor problem when used full strength as a cleaner. In addition to the odor problem, there are no guidelines to indicate how long a set time should be used with vinegar and there are no guidelines to indicate what types of germs get killed by vinegar.
* **Custodians should be aware of potential damaging effects of vinegar and other acid cleaners.** Vinegar, like other acid cleaners strong enough to dissolve minerals, has the potential to damage surfaces made of minerals or metals. The damage is usually gradual so, by the time you notice it, permanent damage has been done. Never use vinegar, not even a weak neutralizing solution, on a marble floor or other highly polished natural stone floor. When used in the stronger spray bottle solution, vinegar should be rinsed.

**Vinegar to clean chalkboards?**

On slate and on porcelain-coated steel chalkboards where wet cleaning methods are used, vinegar in the spray bottle solution noted above (or in the weaker solution strength as described for mop buckets) can be used if extremely deep cleaning is desired. When used in this manner, the chalkboard should be cleaned a second time with a water rinse solution to guard against damage to the board.