	<b>RESOURCE LIBRARY</b> <b>HOTEL OPERATIONS - HOUSEKEEPING</b> <b>Introduction to Cleaning Chemicals</b>	<i>CODE:</i> 03.05.105
		<i>EDITION:</i> 1
		<i>PAGE</i> 1 OF 3

**Description:**

---

**OBJECTIVE**

- To provide a comprehensive informative guide on cleaning chemical.

**STATEMENT OF POLICY & PROCEDURE**

1. A major task of the Housekeeping department is the removal of dirt in its many forms. It must never be overlooked that the most carefully trained employee or most efficient piece of equipment will only produce good result if supplied with superior cleaning products. A Housekeeping department requires a wide variety of products ranging from an all-purpose cleaner to a one of a kind wax for special floors. Products use for every day cleaning may be one of the following:
  - a. Soap:


Soap is made up of weak acids (derived from vegetable or animal fats) and strong alkalis such as lye or caustic potash. It cleans by emulsifying greasy dirt, by giving water greater power to penetrate and but keeping soil suspended in solution. Hard water decreases it efficiency and causes formation of an insoluble curd residue.
  - b. Synthetic Detergent:

Sometimes referred to as “soap less” soap this is a chemical compound made of hydrocarbons, sulphuric acid, and soda ash. It is equally effective in hard or soft water and leaves no residual curd.
  - c. Alkali Cleaners:

Some of the alkalis used in making soap are used in their original form for large scale cleaning operations or removal of usually heavy soil – for example, trisodium phosphate, caustic potash. There is danger in using these if the user is not fully familiar with their properties. The potency of the solution must be adjusted to both the type of surface and the degree of soil.
  - d. Abrasives:

These clean by scouring action. Substances used are pumice, talc, and borax. In their most familiar, scouring powder, they are combined with soap or synthetic detergent. Harsh abrasive must be avoided in the cleaning of porcelain enamel tile for they start a vicious cycle – the scratches they make on the surface collect dirt, this calls for more abrasive cleaning, and finally the entire surface is dulled.
  - e. Metal Polishes:

Used to remove tarnish and produce gloss on various metals. Unless they contain a corrosion inhibitor, they may etch brass and copper. Products designed for specific metals are available powder, liquid and paste form – strict adherence to label instructions is advised.

	<b>RESOURCE LIBRARY</b> <b>HOTEL OPERATIONS - HOUSEKEEPING</b> <b>Introduction to Cleaning Chemicals</b>	<i>CODE:</i> 03.05.105
		<i>EDITION:</i> 1
		<i>PAGE</i> 2 OF 3

f. Dry Cleaning Compounds:

These usually contain gasoline, benzene or carbon tetrachloride. They must be handled with extreme care as they are flammable, and some may give off noxious fumes.

All cleaning products are either acid or alkaline. The technical term used to indicate the degree of acidity or alkalinity is 'pH'. The pH value is rated on scale of 0-14. 0 is the strongest acid, 7 is neutral and 14 is the strongest alkaline. The further the cleaner pH gets away from 7 the easier it removes soil. For instance, a floor stripper may go as high as 11 to remove the floor finish and detergent build-up, but it could not be used on the floor regularly without danger of damaging the surface. To remove the limes staining in a toilet bowl, an acid cleaner is needed.

g. Polishes, Waxes, Finishes, Sealers:

Floor seals are of two types – penetrating and surface. Penetrating seals are used on woos or concrete floors and add to hardness and durability as they permeate the pores of materials. Surface seals are thinner and form a clear film that protects the surface.

Limestone tile and terrazzo require a type of sealer that must be rubbed in, because the pores are not as open and thirsty as wood and concrete pores. Terrazzo tends to discolor unless a colorless seal is used.

2. The basic type of floor finishes are:

a. Solvent Base Wax:

The usual vehicle for this wax is naphtha. It forms a close bond with the surface to give a long lasting polish. It must be buffed.

b. Water Base Wax:

The liquid content is non-inflammable; therefore this type is preferred by most institutions. The wax content is usually carnauba, a hard wax derived from palm fronds. This dries to a gloss without buffing and is less slippery than buffed solvent wax.


c. Dry-cleaning Solvent Wax:

This is a solvent wax that cleans and waxes in one operation. It is valuable for floors where excessive water should not be used – such as cork.

d. Polymer Type Floor Finish:

This is synthetic product available in both a buffable and a non-buffable material. These products come in varying degree of hardness and are sometimes referred to as resilient floor seals.

This floor finish is applied in the some manner as the water base for floor finish and will dry to a natural sheen.

	<b>RESOURCE LIBRARY</b> <b>HOTEL OPERATIONS - HOUSEKEEPING</b> <b>Introduction to Cleaning Chemicals</b>	<i>CODE:</i> 03.05.105
		<i>EDITION:</i> 1
		<i>PAGE</i> 3 OF 3

In selecting a wax, the Executive Housekeeper should consider these factors:

- Luster attained
  - Degree of discoloration
  - Degree of slipperiness
  - Ease of application – does it spread evenly?
  - Traffic performance – does it wear off easily, show scuffmark and scratches?
  - Maintenance properties – reaction to damp mopping, to buffing
  - Reapplication properties – removability of soil and old wax
3. Other products required by Housekeeping department are those for sanitation. Sanitation is the science of preventing disease by the destruction of disease producing bacteria. Sanitation is required in guest bathrooms and washrooms. It starts with thorough cleaning but also calls for chemicals capable of killing bacteria's, germicides. Their effectiveness depends upon proper concentration and method of application. Some of the most commonly used are:

- a. The Chlorines:  
Hypochlorites (the common households bleach) are good disinfectants for floors, but are corrosive to metal.
- b. The Phenolics:  
These derivatives of carbolic acid are effective germicides for floors, walls, and furniture. Their odor is mild, properly formulated and they are generally non-irritating to the skin.
- c. The Quaternary Ammonias:  
These compounds are stable in hot or cold water and have longer shelf life than the hypochlorites. They are non-irritating, non-corrosive and effective in the control odors. But they are incompatible with certain other compounds – contact with hard water minerals, certain soaps, and dried wax film reduces their killing power.

Many detergent sanitizers (germicide0detergents) are available, which are particularly effective for this housekeeping task. They are a combination of a sanitizing agent, wetting agent and a basic cleaner ingredient, such as an alkaline.