

An Exploratory Study on Usage of Cleaning Chemicals for Housekeeping with Special Reference to Hospitality Industry

Mrs. Darshana Gangurde and Mr. Renfred Pinto

Anjuman-I-Islam's College of Hotel & Tourism Management Studies & Research, Mumbai

Abstract: *The hospitality sector prioritizes hygiene and cleanliness to guarantee the well-being and contentment of its patrons. The purpose of this study is to assess and contrast the efficiency of several cleaning products that are frequently used in hotels to keep the surroundings hygienic and clean. To ascertain the efficacy of diverse cleaning chemicals in eliminating dirt, bacteria, and viruses from diverse surfaces, we carried out an extensive examination encompassing chemical disinfectants, natural substitutes, and novel technologies. Our study evaluates the effectiveness and practicality of these cleaning chemicals using both in-lab testing and real-world hotel environments. The study's findings will be extremely helpful to hotel personnel and management as they work to raise cleanliness standards while reducing negative effects on the environment and health hazards*

Keywords: Hotel, housekeeping, cleaning chemicals, hospitality

I. INTRODUCTION

Cleaning, as you may know, is the process of getting rid of dust, dirt, and any foreign objects, such as flowers, stains, the contents of the ash tray and waste paper basket, etc. Cleaning is important for maintaining hygienic areas as well as for aesthetic reasons and to stop deterioration. The House Keeping department has basic cleaning equipment that can be used to easily clean dust, which is composed of loose particles. Presenting impeccable accommodation has a significant impact on public health protection in addition to guest satisfaction. Hotels use an extensive range of cleaning chemicals, each tailored to meet particular cleaning requirements, to meet these standards. These agents include everything from conventional chemical disinfectants to cutting-edge innovations and environmentally friendly substitutes. Both hotel management and employees must be aware of the effectiveness and proper use of these cleaning chemicals. The purpose of this study is to thoroughly examine the different cleaning chemicals that are used in hotels and assess how well they work in both lab and real-world environments. We hope that this investigation will yield insightful information about how to best maintain hygiene standards in the hospitality sector while taking public health and the environment into account.

Objective:

To study various cleaning chemicals used by the housekeeping department in a hotel.

II. RESEARCH METHODOLOGY

This research paper is based on secondary data. The data is collected from research journals, magazines and internet websites

III. LITERATURE REVIEW

(Kumar, 2012) Explained in the article that the housekeeping department uses various cleaning chemicals to maintain the hygiene of the hotel. Just as we enjoy keeping a sparkling home for ourselves and guest who visit us at home, the housekeeping department tasks pride in keeping the hotel clean and comfortable so as to create a home away from home.

(Harsha Sheelam, 2019)Article mainly focused on the expenditure on maintenance.Their study was to analyze the expenses related to the acquisition and application of cleaning supplies, including phenyl, detergents, cleaning gels, and glass cleaning liquids. The study also includes an evaluation of the expenses that different hospitality businesses incur for housekeeping chemicals.

(Smriti, 2020)/In the book they have elaborated all the various cleaning chemicals used in a hotel. They have basically given a short description on all the cleaning chemicals and described it in a short and in a briefed way. The storage of cleaning chemicals has also been mentioned.

(Maitreyi Kathare, 2022)Have mentioned in their studies that cleaning chemicals pose many kinds of health hazards, although corrosion and irritation hazards dominate, in particular for the eyes (54% of all included products). Few products were recognized as inhalation hazards.

(Sivakami, 2013)Has mentioned in her article the importance of cleanliness and how it is achieved by the help of various cleaning chemicals, each with a different use.The primary goals of cleaning are to maintain surfaces, furniture, and fixture life, as well as to enhance the appearance of the spaces. Cleaning also serves to promote health and safety.

(Chatterjee, 2022) States in their article that,nothing draws clients more than a spotless hospitality setting. There is no level of refinement, politeness, or service that compares to the satisfaction a guest feels when they walk into a neatly organized room with all the amenities they need. Both the management and the guests concur that keeping the room environment neat and orderly is essential to charging a reasonable price, gaining repeat business, and building a devoted clientele and higher profits. The Housekeeping Department is extremely proud of the high standards of quality and cleanliness that it upholds. Every lodging facility aims to provide its guests with clean, comfortable, calm, and friendly surroundings that provide excellent value for their money.

(BERIWAL, 2007) In her article, explained the importance of cleaning, how it is beneficial to the hotel industry. How cleaning has always been seen as a chore and probably always will be. But many businesses now understand that effective cleaning can be achieved with the right structure.

Following are the types of cleaning chemicals used in a hotel:

Water: Water's ability to dissolve almost anything gives it the tag of "universal solvent." This is the main cleaning agent that is used. Water is a great solvent, but it's not a cleansers that works well enough to meet the standards that most hotels have. There are typically two kinds of water: a) Hard water &b) Soft water. It is best to clean with soft water. Mineral salts, primarily calcium (ca), magnesium (mg), iron (Fe), and manganese (Mn), are what give water its hardness. Since no detergent works well with hard water, care must be taken to ensure that the water is soft. Hard water also fails to adequately moisten the surface, which is a necessary condition for effective cleaning.

Detergents: When used with water, detergents are cleaning chemicals that can loosen, remove, and suspend dirt, not allowing it to be redeposited on the surface that has been cleaned. Pure water alone is insufficient to remove oily organic soiling, hence detergents and soaps are used for cleaning. Detergents serve as an emulsifier during the cleaning process. In essence, soap dissolves oil into water to facilitate the removal of oily dirt during rising. The main ingredient in detergents are surfactants, which come from petrochemicals. Surfactants make water "wetter" by lowering its surface tension, which increases its propensity to interact with oil and grease and decreases its tendency to stick to itself.

Acids: When used as cleaning chemicals, acids can be used either in solution or as a component of a unique formulation, such as a toilet cleaner. Water-soluble salts are created when cleaning products with acidic qualities react with chemical deposits that dissolve in water. Acids are used to remove metal stains, like tarnish on silver, hard water deposits around taps, and bath water stains. This is because acids dissolve metals. Citric acid (lemon juice) and acetic acid (vinegar) are examples of weak acids. They are used to remove light bath water stains as well as tarnish from brass and copper. Oxalic acid, phosphoric acid, hydrochloric acid, and sulfuric acid are examples of strong acids. Because strong acids are extremely corrosive, housekeeping personnel should receive training on how to handle them safely. Acids ought to be used sparingly.

Alkali: These come in liquid and powder forms and are used as cleaning chemicals. Because very strong alkalis are toxic and corrosive, they should be used with extreme caution. We refer to them as caustic alkali. To unclog drains, use a cleaning solution based on caustic soda. There are potent alkaline cleaning solutions for cleaning large industrial equipment and blocked drains that are based on caustic soda in liquid or flakes form.

Organic Solvents: Because grease dissolves in organic solvents like acetone, carbon tetrachloride, methylated spirit, and turpentine, these solvents are effective cleaning chemicals. They are extensively utilized in grease removal, stain removal, and dry cleaning. Also used for cleaning surfaces that water might damage. They are perfect for cleaning glass surfaces like windows and mirrors since they quickly evaporate from a surface. Because organic solvents are poisonous, flammable, and damaging to the skin, they should be handled carefully.

Polishes: They don't always clean, but they do make things shine by giving off a smooth surface that evenly reflects light. They achieve this by evening out any irregularities on the object's surface, frequently by applying a thin coating of wax to the surface to provide some protection. Metal polishes: these take away the tarnish left on metal by substances and foods that eat into the metal. There are two primary varieties: one for hard metal and another for soft metal. Either kind could be paste-like or liquid. A fine abrasive wax, such as plate powder, precipitated whiting, jeweler's rouge, methylated spirit, and ammonia, is combined with grease solvent to create liquid polish. Abrasive when rubbed on the surface of the metal provides friction to remove the tarnish and produce a shine. Floor polishes – They are of two basic types – Spirit-based, Water-based.

Abrasives: In order to remove dirt from hard surfaces, abrasives rely on their ability to rub or scratch. The type of abrasive material and the size and shape of the particles determine how much they will rub or scratch a surface. The type of dirt to be removed and the surface to be cleaned will determine how much abrasive is made use of. Finer abrasives are to be used whenever possible rather than coarser ones. For instance, steel wool, glass, sand, emery paper, nylon pads, powdered pumice, feldspar, calcite, and fine ash. They are available in natural, liquid, paste or powdered form.

Disinfectants and deodorants: Although they are not specifically cleaning chemicals, disinfectants, antiseptics, and deodorants are frequently used in cleaning procedures. While antiseptics stop the growth of bacteria and are usually diluted disinfectants, disinfectants kill bacteria.

Carpet Cleaner: These are composed of neutral water soluble solvents, emulsifiers, de-foamers, soil repellants, sanitizers (occasionally), optical brighteners, and deodorizers. They are available as sprays, powders, foams, and liquid shampoos. Whichever type is selected, it is essential that they be used in correct dilutions.

Window Cleanser: This is a water-miscible solvent to which a tiny amount of surfactant—possibly an alkali—is added to enhance the cleanser's polishing effect. It occasionally contains fine abrasives as well. Using a cleaning rag and a clean, soft cloth, apply the cleanser. Another way to apply cleaner and clean the surface is to spray it on.

Toilet Cleanser: Toilet cleaners are chemical solutions designed specifically for cleaning a toilet bowl, usually in conjunction with a toilet brush. Before using a toilet brush, toilet cleaner is sprayed into the bowl and around the rim of the toilet. The toilet is scrubbed with a toilet brush to get rid of biological detritus and tough stains.

Degreasing Agents: Typically, they are composed of potent alkalis that have the ability to dissolve proteins, emulsify, and distribute grease and other similar substances. Their foundation is sodium metasilicate or caustic soda. You can also use washing soda, or sodium carbonate. Basically, they are used to clean ovens and other industrial equipment, unclog drains, and remove stains. Because of their high pH, they should be used with extreme caution.

Overview of Chemical Industry: It is not surprising that the chemical sector is a large, complex industry given its crucial role in other sectors. Chemical production companies are highly interdependent, both as suppliers and consumers, and they rely on other industries and worldwide economic trends. The primary raw materials used in the chemical industry are air, water, salt, sulfur, limestone, and fossil fuels. Other specialized raw materials are also used. These materials are transformed into products by the industry, which is typified by the fact that its goods nearly invariably need additional processing before they are consumed by final consumers.

IV. CONCLUSION

Maintaining high standards of cleanliness and hygiene in housekeeping, especially in the context of the hospitality industry, depends on the use of cleaning chemicals. Even though these chemicals are essential to guaranteeing guest safety and comfort, care must be taken when handling them, giving sustainability and health concerns top priority. By utilizing cleaning chemicals in housekeeping efficiently and responsibly, the hospitality sector can maintain a high level of hygiene and safety while putting sustainability and guest satisfaction first.

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