

CHEMICALS AND CLEANERS USED FOR HOUSE AND EXTERIOR BUILDING CLEANING <https://commercialrestorations.com/chemicals-and-cleaners-used-for-house-and-exterior-building-cleaning/>

In this post, we would discuss about chemicals and cleaners that are used by our [Commercial Restorations](#) team for house and exterior building cleaning.

Sodium Hypochlorite – Sodium hypochlorite (a.k.a. bleach) is one of the most commonly used chemicals in the world. A solution of sodium hypochlorite is frequently used as a disinfectant and as a bleaching agent. Often it is simply called “bleach”, though other chemicals are sometimes given that name as well.

What are the characteristics of sodium hypochlorite? Sodium hypochlorite is a clear, slightly yellowish solution with a characteristic odor. It has a relative density of 1.1 (5.5% watery solution). As a bleaching agent for domestic use it usually contains 5% sodium hypochlorite (with a pH of around 11, it is irritating). If it is more concentrated, it contains a concentration 10-15% sodium hypochlorite (with a pH of around 13, it burns and is corrosive).

Sodium hypochlorite is unstable. Chlorine evaporates at a rate of 0.75 grams of active chlorine per day from the solution. When heated, sodium hypochlorite disintegrates. This also happens when sodium hypochlorite comes in contact with acids, sunlight, certain metals and poisonous and corrosive gasses (including chlorine gas). Sodium hypochlorite is a strong oxidizer and reacts with flammable compounds and reductors. Bleach affects natural fibers such as cotton and wood adversely.

These characteristics must be kept in mind during transport, storage and use of sodium hypochlorite.

Sodium hypochlorite is used as a disinfectant/mold killer. Sodium hypochlorite produces a residual disinfectant effect.

Sodium hypochlorite can be a dangerous and corrosive substance. While working with sodium hypochlorite, safety measures have to be taken to protect workers and the environment. Care should be taken to minimize the exposure of sodium hypochlorite to air, heat, or sunlight to prevent chemical breakdown.

Detergents – A detergent is a cleansing substance that acts similar to soap but is made from chemical compounds rather than fats and lye. Detergents and soaps are used for cleaning because pure water can't remove oily, organic soiling. Soap cleans by acting as an emulsifier. Basically, soap allows oil and water to mix so that oily grime can be removed during rinsing. Detergents were developed in response to the shortage of the animal and vegetable fats used to make soap during World War I and World War II. Detergents are primarily surfactants, which could be produced easily from petrochemicals. Surfactants lower the surface tension of water, essentially making it 'wetter' so that it is less likely to stick to itself and more likely to interact with oil and grease.



Modern detergents contain more than surfactants. Cleaning products may also contain enzymes to degrade protein-based stains, bleaches to de-color stains and add power to cleaning agents, and blue dyes to counter yellowing.

Sodium Hydroxide, Potassium Hydroxide – Sodium hydroxide, also known as lye or caustic soda, is defined as a strongly alkaline caustic used in manufacturing soap and various sodium compounds. The main uses of sodium hydroxide are in chemical manufacturing (pH control, acid neutralization, off-gas scrubbing and catalyst); pulp and paper manufacturing; in petroleum and natural gas industry (removing acidic contaminants in oil and gas processing); manufacture of soap and detergents and other cleaning products; and cellulose ethers; cotton mercerizing and scouring. Its sister chemical, potassium hydroxide, behaves similarly. Other uses include water treatment, food processing, flue-gas scrubbing, mining, glass making, textile processing, refining vegetable oils, rubber reclamation, metal processing, aluminum processing, metal degreasing, adhesive preparations, paint remover, disinfectant, rubber latex stabilizer and stabilization for sodium hypochlorite.

Butyl – Butyl is a water-soluble organic solvent designed to clean and degrease surfaces. For cleaning building exteriors, butyl works well in metropolitan areas where smog, vehicle exhaust, and airborne pollutants like jet fuel are present. Butyl is often used to remove acid-rain streaks on painted surfaces. Butyl alone does not kill mold as effectively as an alkaline cleaner.

Trisodium Phosphate – TSP is the tertiary phosphate of sodium used as a builder in soaps and detergents. For many years, compounds similar to this were used in clothes and dishwashing detergents, until the damage that phosphates caused to the environment was realized. Now, the power of phosphates is limited, but you can still purchase and use it in its purest form, TSP. TSP is a strong caustic used for washing surfaces prior to painting, especially exterior surfaces, because it will etch the existing surface. Liquid bleach is often added to TSP if there is mildew on the surfaces. The TSP and bleach act in concert to both kill the mildew and remove its characteristic stains.

It can damage many metal and painted surfaces, and can stain woods. It is not recommended for use on glass, either, since it will leave a filmy residue.

Oxalic Acid – Oxalic Acid is a toxic colorless crystalline organic acid found in oxalis and other plants; often used as a rust remover. Just hearing the word “acid” sounds ominous, but oxalic acid is easy to use and the safest for the home. In fact it is found in many vegetables including spinach, and rhubarb. Perhaps its best known use is that as a wood bleaching agent. It is toxic if ingested in large doses. Other acid-based cleaners are more effective on removing rust and efflorescence than oxalic.

Hydrochloric Acid – Hydrochloric acid is the proper name for muriatic acid and is a chemical compound. Hydrochloric acid is the aqueous (water-based) solution of hydrogen chloride (HCl) gas. It is a strong acid, the major component of gastric acid and of wide industrial use. A highly corrosive liquid, hydrochloric acid should be handled only with appropriate safety precautions. Hydrochloric acid is a fundamental chemical, and as such it is used for a large number of small-scale applications, such as leather processing, household cleaning, and building construction. Acid-based cleaners are more effective for removing rust and efflorescence than using a straight acid because the surfactant in a cleaner provides “lift” for the soil, enabling you to rinse it away easily.

Surfactants – Surfactants are wetting agents that lower the surface tension of a liquid, allowing easier spreading, and lower the interfacial tension between two liquids. Surfactants constitute the most important group of detergent components. Generally, these are water-soluble surface-active agents comprised of a hydrophobic portion, usually a long alkyl chain, attached to hydrophilic or water solubility enhancing functional groups.

It is important to use a supplier who supports the products he sells and who supports you. There are many reputable suppliers who produce products designed specifically for the work you will be doing. Seek out quality products from quality suppliers, and you will always have the best tools for the job.

Contact us for your house or building cleaning work to get best results.

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