Executive Certificate in Cruise Ship Housekeeping Procedures

Unit 3: Cleaning Chemicals and Equipment

Acidic Cleaners: Cleaning chemicals with a pH level below 7, which are used to remove mineral deposits, rust, and hard water stains. Examples include hydrochloric acid, phosphoric acid, and sulfamic acid.

Alkaline Cleaners: Cleaning chemicals with a pH level above 7, which are used to break down oils, greases, and proteins. Examples include sodium hydroxide, potassium hydroxide, and ammonia.

Antimicrobial Agents: Chemicals that kill or inhibit the growth of microorganisms, such as bacteria, viruses, and fungi. Examples include quaternary ammonium compounds, chlorine bleach, and alcohol.

Bactericides: Chemicals that kill bacteria, but not other types of microorganisms. Examples include triclosan, silver, and copper.

Buffing Machines: Equipment used to polish and shine surfaces, such as floors, furniture, and fixtures. Buffing machines use rotating pads or brushes to apply a polishing compound to the surface.

Caustic Soda: A strong alkaline cleaner commonly used in the form of sodium hydroxide, which is highly effective at breaking down greases and oils. It is also used in drain openers and oven cleaners.

Chelating Agents: Chemicals that bind to minerals, such as calcium and magnesium, and prevent them from forming deposits on surfaces. Examples include EDTA, DTPA, and citric acid.

Cleaning Chemicals: Chemicals used to remove dirt, stains, and other forms of soiling from surfaces. Cleaning chemicals can be acidic, alkaline, or neutral, and can be in the form of liquids, powders, gels, or aerosols.

Cleaning Equipment: Equipment used to apply, distribute, and remove cleaning chemicals from surfaces. Cleaning equipment can be manual, such as mops, brooms, and sponges, or powered, such as vacuum cleaners, scrubbers, and pressure washers.

Color-Coded Cleaning: A system of using different colored cleaning tools and equipment for different areas, to prevent cross-contamination and ensure hygiene. For example, red could be used for bathrooms, blue for kitchens, and green for general areas.

Degreasers: Cleaning chemicals used to remove greases and oils from surfaces. Degreasers can be alkaline, solvent-based, or water-based.

Disinfectants: Chemicals that kill or inactivate a high percentage of bacteria, viruses, and fungi on surfaces. Disinfectants are regulated by the EPA and must meet certain efficacy standards.

Enzyme Cleaners: Cleaning chemicals that contain enzymes, which break down organic matter, such as proteins, starches, and fats, into smaller molecules that can be easily rinsed away.

Fungicides: Chemicals that kill or inhibit the growth of fungi, such as mold, mildew, and yeast. Examples include sodium hypochlorite, hydrogen peroxide, and benzalkonium chloride.

Germicides: Chemicals that kill or inhibit the growth of a broad range of microorganisms, including bacteria, viruses, and fungi. Examples include chlorine bleach, quaternary ammonium compounds, and alcohol.

Green Cleaning: A practice of using cleaning chemicals and equipment that have minimal impact on the environment and human health. Green cleaning products are typically made from renewable resources, are biodegradable, and have low or no VOCs.

Hypochlorites: Chemicals that contain chlorine, which is a strong oxidizing agent. Hypochlorites are commonly used as disinfectants and sanitizers, and can be in the form of sodium hypochlorite (bleach), calcium hypochlorite, or lithium hypochlorite.

Neutral Cleaners: Cleaning chemicals that have a pH level of around 7, and are safe for use on most surfaces. Neutral cleaners are typically used for general cleaning, and are less likely to damage surfaces or leave residues.

Oxidizing Agents: Chemicals that release oxygen or other reactive species, which can break down organic matter and kill microorganisms. Examples include hydrogen peroxide, peracetic acid, and sodium percarbonate.

Quaternary Ammonium Compounds (QACs): Chemicals that contain positively charged nitrogen atoms, which can attract and neutralize negatively charged microorganisms. QACs are commonly used as disinfectants and sanitizers, and are effective against a broad range of bacteria, viruses, and fungi.

Sanitizers: Chemicals that reduce the number of microorganisms on surfaces to a safe level, typically to less than 100 colony-forming units (CFUs) per square inch. Sanitizers are less effective than disinfectants, but are safer for use on food-contact surfaces.

Solvents: Chemicals that can dissolve or break down other substances, such as greases and oils. Solvents can be organic, such as alcohol, acetone, and xylene, or inorganic, such as ammonia and hydrogen peroxide.

Surfactants: Chemicals that lower the surface tension of water, and allow it to spread more easily on surfaces and penetrate soils. Surfactants can be anionic, cationic, nonionic, or amphoteric, and are commonly used in cleaning products to enhance their cleaning power.

Virucides: Chemicals that kill or inactivate viruses on surfaces. Virucides are regulated by the EPA and must meet certain efficacy standards.

Volatile Organic Compounds (VOCs): Chemicals that evaporate quickly at room temperature, and can release vapors that can be harmful to human health and the environment. VOCs are commonly found in cleaning products, and can cause respiratory irritation, headaches, and other symptoms.

Zoonotic Diseases: Diseases that can be transmitted from animals to humans, either directly or indirectly. Examples include salmonella, listeria, and E. coli, which can be found in food, water, or contaminated surfaces. Proper cleaning and hygiene can help prevent the spread of zoonotic diseases.