

Glossary

“Great Law of the Iroquois Confederacy” reminds us,

“In our every deliberation, we must consider the impact of our decisions on the next seven generations.”

- A**
- Abrasive** - Contribute to the mechanical effectiveness of scouring cleansers. In general, abrasives consist of small particles of minerals.
- Acid** - Chemical substance with pH less than 7. Acids can dissolve calcium and metal salts and find use in tube, tile, sink and toilet bowl cleaners. Phosphoric acid is a common ingredient in such formulations. Hydrochloric acid is a strong acid used in some toilet bowl cleaners.
- Acidity** - A measure of the strength of an acid. See pH and Alkalinity.
- Acrylic** - Type of polymer used in floor finishes. Also, a man-made synthetic fiber used in spun yarn to resemble wool in carpet.
- Active Ingredients** - The ingredients in a product that are specifically designed to achieve the product performance objectives.
- Acute Effect** - Adverse effect on a human or animal that has severe symptoms developing rapidly and coming quickly to crisis. Also see CHRONIC.
- Adhesion** - A necessary characteristic of a floor finish, which causes it to bond to the floor rather than peel, flake or powder.
- Aerobic Bacteria** - Bacteria that requires oxygen. Pseudomonas is an example.
- Air - Indoor Air Quality** - Is typically 10 to 100 times worse in quality than outdoor air. In the interests of energy efficiency, heating and air conditioning units (HVAC) have been designed to maximize the use of indoor air.
- Algacide** - A product which destroys algae.
- Alkali** - A chemical substance with pH greater than 7. Alkalis ensure that pH is maintained at a desirably high level during cleaning. Sodium hydroxide and sodium metasilicate are strong alkalis which not only maintain a high pH, but also play a primary role in removing solid grease. Sodium bicarbonate (baking soda) provides alkalinity at a somewhat lower pH. It is useful for buffering formulations which will contact the skin and for other uses where mildness is important. Silicates perform additional useful functions. They provide corrosion protection, particularly on “white” metals like aluminum.
- Alkaline Residue** - Unsightly film left on floor surface after stripping. A white powdery film which can best be observed by running your hand across the floor surface.
- Alkalinity** - Useful in removing acidic, fatty and oily soils. Detergent products can be formulated at any level of alkalinity to meet cleaning performance requirements. Quality of being alkaline.
- Ammonia** - An alkaline gas composed of nitrogen and hydrogen. 5% to 10% solutions of ammonia in water are sold as household ammonia.
- Anhydrous** - A product that has had all of the water removed.
- Anionic** - Negatively charged part of a molecule. Anionic surfactants are widely used in high-sudsing detergents.
- ANSI** - American National Standards Institute; a privately funded, voluntary membership organization that identifies industrial and public needs for national consensus standards and coordinates development of such standards.
- Antidote** - A substance that counteracts the effects of a poison.
- Antifoaming Agents** - Antifoaming agents are necessary in floor coatings to reduce and eliminate bubbles and foam when the finishes are applied. Bubbles and foam interfere with continuous film formation and can cause cratering when the bubbles break during drying process.
- Antimicrobial** - Agent which inhibits bacteria, fungi, protozoa or viruses that are pathogenic.
- Antimicrobial Agents** - Can destroy bacteria and viruses by interfering with their metabolism or destroying their cell walls. Different chemical structures can serve this purpose, including alcohol, sodium hypochlorite, iodine, pine oil, phenolic and quaternary ammonium compounds.
- Antiseptic** - Any chemical agent that is usually applied to living tissue and which renders micro-organisms harmless either by killing them or by preventing their growth and reproduction.
- Antistat** - Substance which reduces or prevents static electricity.
- A.O.A.C. Method** - Association of Official Analytical Chemists' method of determined phenol coefficient and kill-effectiveness of disinfectant and sanitizing products.
- Aqueous** - A solution which contains water.
- Aromatic Solvents** - Solvents made of compounds that contain an unsaturated ring of carbon atoms, typified by benzene's structure. Xylene and toluene are aromatic solvents.
- Asbestos** - A non-flammable mineral fiber that was once used extensively in some floor tiles especially vinyl asbestos tile (VAT) and asphalt tile. Its use is limited because asbestos is known to be a carcinogen.
- Asphalt Tile** - A floor tile manufactured with a mixture of synthetic fibers, lime, rock, mineral fillers and colouring. Asphalt is used to bind the materials together.
- Asphyxiant** - A vapour or gas that robs the body of oxygen. This can cause loss of consciousness or death. Adequate ventilation is essential when working in confined spaces or when higher levels of volatile materials are being used.
- ASTM** - American Society for Testing and Materials.
- Autoclave** - An apparatus for sterilizing, using super heated steam under pressure.
- Auto-Ignition Temperature** - The temperature at which a material will begin burning without the presence of a flame.
- Automatic Scrubber** - A battery or electrical cord powered floor machine that dispenses cleaning solution, scrubs the floor, and then recovers the solution using a vacuum. All of this can be done in one pass. They are also known as automatics or walk behinds.
- B**
- Bacteria** - Minute, one-cell plant-like, microscopic organisms which differ from true plant in that they lack chlorophyll. They reproduce by binary fission. Bacteria are classed as:
1. Autotrophic - organisms that live on inorganic matter
 2. Heterotrophic - organisms that live on organic matter
 3. Parasites - those which require living organic matter for growth
 4. Saprophytes or Saprogens - those which live on dead organic matter.

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Bactericide - A product that kills bacteria. See also GERMICIDE and DISINFECTANT.

Biodegradable - Biodegradation is the process whereby organic compounds are decomposed by the actions of living organisms in the presence of oxygen into smaller organic fragments and ultimately carbon dioxide, water and other inorganic harmless substances. Organic compounds are needed in biodegradation. In other words, you need to have organic (carbon) compounds as opposed to inorganic (non-carbon) compounds in order for biodegradation to occur. When micro-organisms aerobically degrade, they primarily use carbon as their energy source. In this process, the carbon is removed from the aqueous environment and is converted either into components of the organism (i.e. cell walls and so on) or carbon dioxide. The equation is as follows:

Micro-organisms - Carbon Compound (Organic Cleaner) + Oxygen -> Energy + Biomass + Carbon Dioxide.

The real concern when we look at a product's impact on the environment is either the toxicity of the chemicals or the total burden. In the latter case, if the organic materials do not biodegrade rapidly, they can persist and eventually have an impact on the quality of drinking water.

OECD (Organization for Economic Co-operation and Development)

OECD test method 301D Readily Biodegradable Closed Bottle -measures the Biochemical Oxygen Demand (BOD) — the oxygen consumed by the microorganism in the test, versus the Theoretical Oxygen Demand (TOD or COD)— the oxygen demand to completely mineralize the chemical. When the ratio of the BOD over the COD is greater than 60 per cent, the chemical is considered to be readily biodegradable with one additional qualifier — time.

The chemical must achieve this threshold in 28 days. Once the degradation begins, it must hit the 60- per cent mark in a 10 day window of time within the 28 days. (In other words, it can't creep gradually up to 60 per cent over the entire 28 days).

When a compound has been converted into innocuous inorganic end products, it is identified as being completely mineralized or ULTIMATELY BIODEGRADABLE.

Hence, the screening classification of ULTIMATE IS READILY BIODEGRADABLE, which is what we have just described in 301D (i.e. a 60 per cent threshold 10-day window, 28-day limited which indicates that the degradation reaction is rapid and effective).

Inherently Biodegradable - is applied to compounds that show degradation within a specified test period, but the extent and rate of degradation may be stretched out. For example, a 12-week period is allowed in OECD Method 302A, and a more favourable biomass may be allowed. This explains why inherent is the least desirable classification.

Black Heel Marks - Black heel marks are caused by footwear or equipment leaving a dark mark on the floor.

Bleach - A product that cleans, whitens, removes stains and brightens fabrics.

Bleaching Agents - Act as soil and stain removers. They attack soil chemically, breaking it down to smaller units. Coloured soils and stains are oxidized to a colourless, more easily removable form.

Bleeding - Removal or dispersion of color from carpet or other floor tile material by a liquid. Floor tile (particularly asphalt) can bleed from an excessive concentration of stripper solution. Blushing - A film defect appearing as a milky opalescence that sometimes appears as the floor finish film dries. It is caused as the rapid solvent evaporation cools the surface and moisture from the air condenses on the wet coating. This condition is commonly encountered when air flow is poor and humidity is high. This same condition can occur when coats are rushed and applied before the prior finish coat is completely dry.

B.O.D. - Biological Oxygen Demand

Boiling Point (BP) - The temperature at which a liquid changes to a vapor state at a given pressure.

Brighteners - Optical or fluorescent enhancers found in carpet and fabric cleaning products.

Broad Spectrum - Killing a wide variety of Gram - (Negative) and Gram + (Positive) organisms. Effective against salmonella choleraesuis and staphylococcus aureus.

Browning (Brown Out) - A reaction that occurs in carpets when high pH solutions cause the carpet's natural coloring in the backing (usually jute) to travel up the fiber strand and discolor the carpet.

Buffer - Any substance in a fluid which tends to resist a change in pH when acid or alkali is added. Also a slang term for a floor buffing and scrubbing machine.

Buffering Agent - A substance which, when added to a solution, assists in maintaining the original pH of the solution.

Builders - The most basic function of builders is to tie up the hardness minerals in water so they do not interfere with the cleaning action of the surfactants - they soften water.

Building-Related Illness (BRI) - Refers to a specific illness brought about by indoor air quality problems. (Perhaps the best-known example of BRI is Legionnaires disease).

Burnish - To polish or make shiny. To develop a smooth, lustrous surface finish by rubbing with a floor pad or brush.

Burnishing - A maintenance method used to produce a gloss with functional heat and vigorous mechanical action. (i.e. floor pads under a high speed floor machine).

Butyl Cellosolve - A trademark name for a water-soluble solvent frequently used in degreasing products. Actual name of slang term "butyl".

C

Calcium Carbonate - An inorganic compound that occurs naturally as chalk and limestone. Its very slight solubility in water is a chief cause of "hardness" in water.

Carcinogen - A substance or agent capable of causing or producing cancer in mammals, including humans.

Carnauba - A natural wax from the leaves of the carnauba palm in Brazil. A polishing wax, used in car wax and some floor waxes for wood floors.

CAS - Abstracts and indexes information published in "Chemical Abstracts" by the American Chemical Society. "CAS Numbers" are used to identify specific chemicals or mixtures.

CAS Registry Number - This system enables users to gain access to a unique identification of a chemical substance on the basis of an ambiguous computer language description of its molecular structure, including all stereochemical detail.

Catalyst - A substance which increases the speed of a reaction without itself being consumed by the process. Cationic Surfactant - A surfactant that is from a positively charged ionic group. The most common cationic surfactants are known as quaternary ammonium compounds such as alkyl dimethyl and ammonium chloride. These are widely used as disinfecting and sanitizing products. Caustic - Strong base (alkaline) substance which irritates the skin. It also refers to caustic potash (potassium hydroxide) which is used in manufacturing soft soap.

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Caustic - Any strong alkaline material which has a corrosive or irritating affect on living tissue.

Ceramic Tile - Clay tile with an impervious, usually glossy, layer on the surface.

CFC (a short form of chlorofluorocarbon): CFCs have been shown to be one of the major contributors to the depletion of the ozone layer, a stratospheric barrier to high intensity ultraviolet light from the sun which would destroy life as we know it, if it were to reach the surface of the earth.

CGSB - The Canadian Government Standards Board.

C.F.M. - Cubic Feet per Minute. Describes the amount of air generated by a vacuum motor.

Chelating Agent - An organic sequestering agent used to deactivate hard water and other metallic ions in water. Chelating agents are used in detergent formulations because they deactivate the hardness minerals such as calcium and magnesium and reduce ill effects of other dissolved metals.

Chemtrec - Chemical Transportation Emergency Center is a national center established by the Chemical Manufacturers Association to relay pertinent emergency information concerning specific chemicals on request from individuals.

Chemical - A word much misused in every day parlance. Everything is made up of chemicals. Water, table salt and the calcium carbonate and calcium phosphate which are the primary ingredients of bone are all chemicals.

Chlorinated Solvent - An organic solvent that contains chlorine atoms as part of the molecular structure. They include carbontetrachloride (vapour degreasers) chloroethene, trichlorethylene and perchlorethylene. They are being phased out of the cleaning industry.

Chlorine Bleach - A group of strong oxidizing agents commonly sold in an approximately 5% solution of sodium hypochlorite. Bleach should not be used with silk, woolens or dyes sensitive to hypochlorite, nor on certain stains such as rust (which it can set).

Chronic Effect - An adverse effect on a human or animal body, with symptoms that develop slowly over a long period of time or that recur frequently. Also see ACUTE.

CIP (Cleaned-In-Place) - Many pieces of food and dairy processing equipment cannot be disassembled for cleaning, so they are cleaned in place.

Cleaning - Cleaning is locating, identifying, containing, removing and disposing of unwanted substances (pollutants) from the environment. It is our most powerful means of managing our immediate surrounding and protecting our health.

Cleanser - A powdered or liquid cleaning product generally containing abrasives, a surfactant and frequently a bleach.

Coalescing Agents - These are ingredients added to floor coatings to assist in the film formation. Once the water evaporates from the coating, the coalescing agents remain and evaporate slowly allowing the polymers, resins, waxes and acrylics to form a continuous and durable film.

C.O.D - Chemical Oxygen Demand

Colloids - Dispersions of particles in a liquid which are in such a finely divided state that gravitational forces will not separate the particles, even though they are too large to form a true solution. The dispersion is maintained by the repulsive forces of the similar electrical charges on the particles and can be broken by introducing an electrical current or by adding electrolytes to mixture.

Colours and Dyes - Ingredients added to improve the appearance of a product. Many artificial dyes have been the subject of scientific controversy; their use in food is now heavily regulated.

Compostable - Able to be composted in the aerobic conditions found in a composting operation. Compost is the product of decay of organic materials.

Conductive Flooring - A special type of floor or floor covering that allows static electricity charges to drain away easily. Some types also prevent a static charge from building up.

Corrosion - The electrochemical degradation of metals or alloys due to a reaction with their environment.

Corrosion Inhibitor - A substance which protects against oxidation of metal surfaces.

Corrosives - Substances which cause skin and eye damage at the site of contact.

Coverage - The amount of product that is required to coat or treat a specific area. Usually expressed in square feet per gallon (sq. ft./gallon)

Cradle-to-Grave Assessment - A process of assessing the environmental impact of products or processes from the source of their ingredients through to their final disposal.

Crazing - A small irregular cracking or breakup in a floor finish film or coating after it has dried on a surface. Powdering, dulling and walk off of the finish can result.

Curing - A chemical aging process that allows floor finishes to bond and harden.

D

Damp Mopping - Mopping with a mop wrung out tightly in a cleaning solution containing mild detergent, disinfectant or sanitizing agent.

Defoamer - Substance used to reduce or eliminate foam.

Degreaser - A specialty product that removes grease and greasy/oily soils from hard surfaces.

Deionized Water - Water from which charged or ionizable organic salts are removed.

Deodorant - A product for masking or eliminating offensive odors.

Designs For Disassembly (DFD) - In a world where recycling is on the rise and the cost of disposal is increasing to the point where reducing waste is on every organization's agenda, ease of destruction is becoming every bit as important as ease of construction.

Detergency - Is the action of removing soil by actually lifting it from the surface and distributing it as suspended particles throughout the cleaner.

Detergent - Synthetic cleaning agent (other than soap) which is useful in physical removal of soils.

Dioxins - A family of chlorinated organic substances of which one member, known scientifically as 2,3,7,8-TCDD, has been described as "the most toxic chemical produced by humans".

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Discoloration - The tendency of a floor finish to turn yellow or darken with age or successive coats. Many times this is caused by embedded dirt.

Disinfectant - An agent that destroys harmful bacteria and/or viruses on inanimate surfaces.

Disinfection - Direct removal of a microorganism which physically eliminates it from potential sites of growth. Washing with soap and water is perhaps the single most important measure for controlling and removing microorganisms.

Dispersibility - A product that goes into solution quickly and uniformly without excessive agitation and is completely soluble in all portions in all normal, soft, and hard water.

Dry Absorbent Cleaning - A carpet cleaning method that uses an absorbent powder that contains a solvent. The powder is worked into the carpet pile in order to absorb the grease and dirt, allowed to set for a period and then vacuumed.

Dry Foam Cleaning - In this cleaning method a concentrated foam is used as the cleaning agent.

Dynamic Coefficient of Friction - The ratio of the force required to keep an object moving to the weight of the object.

Disposable - Generally applied to products which are intended to be used once or for a relatively short life before being thrown away. Environmentalists generally regard disposable as a derogatory term.

E

EcoLogo - A federal government program designed to draw consumer attention to those products which are environmentally improved. The EcoLogo itself, consisting of three doves intertwined to resemble a maple leaf, may be associated only with those products that have been approved by Environment Canada and that adhere to the relevant government regulations.

Ecology - The science of the relationship between organisms and the environment.

Efflorescence - A white deposit sometimes found on concrete or brick surfaces. It is caused by moisture bringing water soluble salts to the surface. The salts are deposited on the surface as the water evaporates.

Electrolytes - Substances capable of conducting an electric current, either in their pure liquid state or when in solution. Acids, bases and salts are all electrolytes.

Emulsification - the action of breaking up fats, oils and other soils into small particles which are then suspended in a solution.

Emulsifying Agents - Substances to make an emulsion stable by surrounding the suspended droplets.

Emulsion - A two-phase liquid system in which small droplets of one liquid are uniformly dispersed throughout the second.

Environmental Friendly® A trademark of Loblaw Companies. Terms such as environmentally friendly are falling into disuse as environmentalists point out that nothing is environmentally friendly.

Enzyme - A protein which initiates or accelerates a chemical reaction. Some occur naturally, others are created through biotechnology. Enzymes break down soils into simpler forms that can easily be removed by the cleaner. They are proteins that are classified by the type of soil they break down: amylase works on starch soils, lipase on fatty and oily soils and protease on protein soils.

E.P.A. - Federal Agency which assures that products intended for environmental use that affect living things (insects, plants, bacterial, rodents) perform as the label indicates and to assure that the label provides all appropriate cautions relative to any potential hazards to the user or the environment. Also, to assure that the label clearly tells the user how and when to use the product.

Epidemiology - The science which deals with the study of disease in a general population. Determination of the incidence (rate of occurrence) and distribution of a particular disease (as by age, sex, or occupation) may provide information about the causes of the disease.

ESD Protective Materials - Material capable of limiting the generation of static electricity; rapidly dissipating electrostatic charges over its surface or volume; or providing shielding from ESD spark discharge or electrostatic fields.

Etch - A chemically caused change on the outside of a smooth floor surface which causes the floor to be pitted or rough.

Exposure Limit - The limit set to minimize an employee's exposure to hazardous material. See PEL, TLV and TWA.

F

Factory Finish - A temporary finish applied to a floor covering by the manufacturer. This finish provides protection during manufacture, transportation, storage and installation. The factory finish must be removed prior to application of a floor sealer or finish.

Fatty Acid - An organic substance (most commonly tallow and coconut oil) which reacts with a base to form soap.

Fish Eyes - Small circles that appear in a floor finish after it has dried. Can be caused by too much agitation during application or by applying too heavy a coat of finish.

Flashpoint - The minimum temperature at which a liquid gives off vapour in sufficient concentration to ignite when tested.

Fungi (Fungus) - Vegetable organisms that lack chlorophyll and are filamentous. Fungi includes mold, mildew, yeast and mushrooms.

G

Germicide - A substance that kills stated micro-organisms.

Gloss - The property of a surface involving specular reflection responsible for lustrous or mirror-like appearance. Measured with a glossmeter usually at a 60 degree angle.

Glossmeter - An instrument for measuring gloss.

Grains Hardness - A measure of water hardness. The actual amount of dissolving calcium and magnesium salts measured in parts per million.

Gram Positive and Gram Negative - Gram (negative) - Refers to chemical difference in certain bacteria which shows up by The Gram staining procedure which uses crystal violet and iodine. These bacteria stain red. Pseudomonas and salmonella are examples of GRAM negative bacteria. Named after Dr. Hans C.J. Gram. Gram (positive) - refers to chemical difference in certain bacteria which shows up by The Gram staining procedure. These bacteria stain blue. Staph and strep are examples of GRAM positive bacteria

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Grout - Matrix between ceramic tile on walls and floors.

H

Hardness of Water - Measured in ppm (parts per million) of minerals. Amount of dissolved minerals (calcium/magnesium) found in water. Water containing soluble salts of calcium and magnesium and sometimes iron is considered hard.

Heeling - Technique of applying pressure to the edge of a floor machine and pad to remove black shoe marks.

Hepatitis B Virus - Hepatitis is a general term describing an infection or inflammation of the liver. Hepatitis B virus (HBV) is a serum hepatitis compared to Hepatitis A which is an infectious hepatitis. HBV is transmitted through blood and blood products, shared needles, venereal and maternal transmission and saliva.

HIV - Human Immunodeficiency Virus: the agent of acquired immune deficiency syndrome (AIDS). Once the diagnosis is made, with all its symptoms, 50% of individuals will not survive for more than one year. The

Humidity - A measure of moisture in the atmosphere.

Hydrochloric Acid (HCl) - Also known as muriatic acid. Used in toilet bowl cleaners in varying dilutions. Hydrogen Chloride.

Hydrofluoric Acid (HF) - A highly corrosive inorganic acid often found in commercial rust removers and stain removers. Use with extreme caution.

I

Inorganic - Is a scientific term used to describe substances which are not composed primarily of carbon, hydrogen and oxygen atoms. (see organic)

Iodophor - Combination of iodine and detergent used for disinfecting.

Ionic Compatibility - Electrical charges in chemical formulations similar to the North and South poles on a magnet.

Irritant - Something that causes an inflammation reaction in the eyes, skin, or respiratory system.

J

James Machine - Gives very precise, reproducible readings of the static coefficient of friction between typical shoe leather and coated floor panels. The Canadian Government Standards Board (CGSB) established the figure of 0.5 on the James Machine as the minimum reading for floor finishes. Ratings above this level pass, readings below fail.

L

LD50 - The dose that will kill 50% of the test animals in a controlled environment. LD = Lethal dose measured in milligrams per kilogram of body weight.

Leveling Agent - Substance added to floor coating which allows it to flow evenly in application and to help prevent "puddling".

Local Exhaust - A system for capturing and exhausting contaminants from the air at the point where the contaminants are produced (welding, sanding, etc.)

M

Metal Interlock - The use of a metal molecule in the chemical structure of polymers to provide resistance to detergents or floor polishes made from these polymers. (Usually zinc).

Micron - 1/25,000 of an inch.

Microorganisms - Living organisms that are too small to be seen without the aid of a microscope. They are also called microbes or germs. Examples include bacteria, viruses, fungi and parasites.

Mildew - A growth produced by a fungus.

Mop Drag - A resistance between the mop and a floor finish during application.

MSDS - Material Safety Data Sheet. A document produced by the manufacturer of a chemical product that explains the hazards associated with the product.

Multiple Chemical Sensitivity (MCS) - Refers to the symptoms faced by a small subset of individuals who are hypersensitive to various chemicals in the environment. These sensitivities generally cannot be traced to a single source. An estimated 15 million Americans suffer from extreme chemical sensitivity, according to the National Academy of Science.

Muriatic - Commercial name given to hydrochloric acid.

N

Neutral - A chemical state that is neither acid nor alkali (base); 7 on the pH scale.

Neutralizer - Chemical to change the pH of a surface so that residues will not interfere with floor coating adhesion.

Nonionic Surfactant - A surface active agent that contains neither positively nor negatively charged (ionic) functional groups. These surfactants have been found to be especially effective in removing oily soil.

Non-Volatile Solids - Refers to the actual amount, expressed in percentage, of a floor finish product that remains on the floor after the drying process.

O

Odor Threshold - The lowest concentration of a substance's vapor, in air, that can be smelled.

Optical Brightener - Substance which makes color appear brighter in the presence of sunlight and ultraviolet light.

Organic - Is also a scientific term used to describe substances composed primarily of carbon, hydrogen and oxygen atoms. The name arose because early chemists believed that such substances could only be produced by natural systems. Today many organic chemicals are artificial.

Orange Peel - A roughness in the surface of a finish which resembles the skin of an orange.

OSHA - Occupational Safety and Health Administration which establishes and enforces laws relating to worker safety.

Overexposure - Exposure to a hazardous material beyond the allowable exposure limits.

Oxidation - To combine with oxygen. Slow oxidation is typified by the rusting of a metal.

Ozone - A toxic substance which is fairly unstable. The ozone layer shields the surface of the Earth from harmful solar radiation.

P

Packaging - The wrap placed on products of all kinds for such purposes as prevention of spoilage, protection of safety and health, labeling, marketing and tamper-proofing. Some estimates suggest that Canadians use one tonne of packaging

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per family per year. The National Packaging Protocol has been adopted in principle by the federal and all provincial governments. By the year 2000 the protocol requires that packaging sent for disposal shall be no more than 50% of the amount sent for disposal in 1988. Interim targets apply. The Protocol requires governments to implement regulations "as necessary" to ensure compliance with the policies which it contains.

Pathogen - A disease producing microorganism.

Particulates - Have an important impact on indoor air quality. They range from inorganics and organic matter such as mite feces, dust and fibres.

PEL - Permissible Exposure Limit. The maximum airborne concentration of a substance regulated by OSHA to which a worker may be exposed.

Pesticide - Agent which prevents, repels, destroys or mitigates pests. Types include insecticides, disinfectants and sanitizers, rodenticides and herbicides.

pH - The pH of a solution is a measurement of its acidity or alkalinity. The scale covers a range of 0 to 14, with 7 being the neutral point. All solutions with a rating of less than 7 are acidic in nature, while those above 7 are alkalis. (0 is ten times more acidic than 1, 1 is 10 times more acidic than 2, etc.).

Phenol Coefficient - A comparison of germicidal effectiveness of disinfectant products with phenol. Usually considered an obsolete comparison.

Phenolics - A term used to describe a carbolic acid disinfectant compound. Wide germicidal action on bacteria, viruses, fungi, mold, mildew and effective against tuberculosis.

Phosphates - A non-toxic, natural inorganic raw material consisting largely of calcium phosphate that is added to a detergent to increase its water softening ability. It is also used in the manufacture of phosphate fertilizers, phosphoric acid, phosphorus and animal feed. Excess concentration of phosphates can lead to "dead lakes".

Phosphoric Acid - The most common acid based on phosphorus sometimes called orthophosphoric acid.

Pine Oil - An oil processed from the gum of pine trees. Used in hard surface cleaning and disinfecting and is distinguished by a characteristic aroma.

Pitting - Formation of small craters on the surface of concrete and terrazzo floors which will grow in size, with traffic and chemical exposure, unless coated with a protective floor finish.

Plasticizer - An ingredient added to floor finish to make it flexible.

Plasticizer Migration - Plasticizers which are present in some types of vinyl and vinyl asbestos flooring and can attack a floor finish film.

Powdering - A disintegration of a polish film into a fine white dust. Powdering can be the result of poor adhesions, loss of plasticizing agents to cleaning solutions, application while temperature or relative humidity is too low to allow proper film formation, application to an unclean floor, heavy traffic or inclement weather.

Polymers - Are compounds whose molecules are very large. When polymers dry, they form films, much in the same manner in which paint dries to a thin film. This is particularly helpful in floor care products where the film protects the surface and may provide a shine as well.

Post-Consumer - Applied to recycled material, means material that has been recovered after consumers have used it.

PPM - Parts per million. One part per million equals 1 pound in 500 tons.

Precipitate - Material settled out of solution.

Preservative - A substance which inhibits the growth of molds, bacteria, etc. and thus helps to prevent spoilage, decay, discoloration, oxidation and bacterial attack.

Pseudomonas Aeruginosa - A detergent-resistant, bacterium that causes upper respiratory ailments.

PSI - Pounds per square inch. Measure used in determining solution pressure in steam carpet cleaning and pressure washers.

Q

Quaternary Ammonium Compounds - A class of chemical used as disinfectant, antistat and softening agents (Quats).

R

Reactivity - Tendency of chemical reaction with the release of energy to occur.

Recoat - Procedure incorporated in floor maintenance programs to increase the level of protection by applying an additional coat of floor finish.

Recyclable - Capable of being recycled. The term is widely used to describe products which are technically recyclable even if no recycling facilities exist for that material. Governments are increasingly moving to require that the term recyclable only to be used on those products or packages for which recycling programs serving a large number of municipalities are in place and operating. Products or packages made from an assortment of materials are sometimes more difficult, or less economic, to recycle than those made from a single material. Primary recycling is the conversion of a product from its used form into a new product of the same for (e.g., making new foods cans from used food cans). Secondary recycling is the conversion of a used product into something still useful but of lower value (e.g., conversion of used plastic bottles into park benches).

Registration Numbers: EPA Registration Number - Found on a United States produced disinfectant indicating that the disinfectant meets the U.S. Environmental Protection Agency's (E.P.A.) criteria for disinfectants.

DIN Registration Number - The Drug Identification Number (DIN) found on a Canadian produced disinfectant indicating that the disinfectant meets the Canadian Department of Health and Welfare criteria for disinfecting the stated pathogens on the label at the prescribed dilution rate. Valid when used in only health care establishments.

PCP Registration Number - The Pest Control Products Act (PCP) number found on a Canadian produced disinfectant indicating that the disinfectant meets the Canadian Department of Agriculture's criteria for disinfecting the stated pathogens on the label at the prescribed dilution rate. Valid when used in all other areas except health care establishments.

Renewable - Resources which are potentially available in never ending supply. To be renewable, the rate of use may have to be limited to the rate at which it can grow.

Resilient Tile - Tile that will withstand shock without permanent damage; includes rubber, cork, asphalt, linoleum, vinyl and vinyl asbestos. This tile will give under impact and certain loads and then return to its original form after the load is removed.

Rotary Brush Carpet Cleaning - A technique in which a detergent solution is worked into the carpet pile by a brush attached to a rotary buffing machine. Loosened soil is usually removed by vacuuming. Commonly called carpet shampooing.

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Routes of Entry - The means by which material may gain access to the body; for example, inhalation, ingestion and eye or skin contact.

S

Salmonella Choleraesuis (samon-el'-la kall-er-uh-soo'-is) Form of bacteria transmitted by food and causes food poisoning.

Sanitizer - A term applied to a chemical or formulation that reduces pathogenic organisms to humanly acceptable levels. Dependent upon the number of microorganisms present, the 0.001% survivors may be enough to cause cross contamination or nosocomial infections in susceptible hosts.

Saponification - The process of converting a fat into soap by treating it with an alkali. Also the process used by some cleaners to remove grease and oil.

Scale - Calcium or mineral deposits in steam boilers and steam and water pipes.

Scuffing - Non-discoloring marks in a floor where the film has been dulled by traffic. In a waxed floor they can generally be removed by buffing with a floor machine. The spray buffing technique is generally used to remove scuff marks from polymer finishes.

Sealer - A coating used to seal the pores of a surface. Generally used when floors are worn, porous or won't hold a floor finish.

Sequestering Agents - Chemicals that tie up water hardness and prevent the precipitation of hard water salts. This action causes clarity in liquid soap. eg. EDTA

Shelf Life - The time between manufacturing and the time that a product becomes spoiled, unusable or ineffective because of age.

Sick Building Syndrome (SBS) refers to symptoms of non-specific cause which affect a large percentage of people.

Slip Coefficient - A measurement of the coefficient of friction as measured on the James machine, an instrument used to test the static coefficient of friction of a surface. U.L. considers 0.5 or above the safe limit.

Slip Resistance - The "drag" encountered when walking on a floor. The higher the coefficient of friction, the greater will be the slip resistance.

Soap - The reaction product of a fatty acid and an alkali - normally used in cleaning applications.

Solid Content - The amount of ingredients in a floor finish that do not evaporate or volatilize at 105 degrees C.

Solids - The residue or percentage weight of material that is left after the volatile materials have been evaporated. This is not a measure of concentration since some material can be completely driven off with heat, even though they are 100% pure chemical. Expressed as % non-volatile - e.g. 21% non-volatile or 79% volatile.

Solvents - (organic) Have a specific place in products where grease removal and cleaning without leaving a residue is important: window cleaners and products for removing finger marks on walls.

Solvency - Is the technique whereby the cleaner literally dissolves the particle and takes into its own system, equally distributed throughout the solvent.

Specific Gravity - The weight of a material compared to the weight of an equal volume of water is an expression of the density (or heaviness) of a material. Insoluble materials with specific gravity of 1.0 or greater will sink.

Spray Buff - An intermediate floor care procedure which cleans, removes black marks and shines the wear areas of a floor. Utilizes a sprayed solution, a floor machine and a synthetic pad.

Staphylococcus Aureus - (staf-il-o-kock'-us oar'-ee-us) Considered the major cause of hospital infections. Develops resistance to antibiotics. Causes boils, carbuncles, blood poisoning and most food poisoning.

Sterilization - The process employed to destroy every form of germ life, including that of bacterial spores. Few chemicals, if any as used in practical disinfection, are actually sterilizing agents. Sterilization is effective usually by means of superheated steam (in autoclave) although it can be achieved also by a combination of heat and chemical action.

Streptococcus (STREP) Common disease organism that microscopically appear as GRAM+ (positive) chains.

Stripper - Specially formulated detergent which breaks the bond of floor wax and finish.

Substrate - The surface to which the coating is applied.

Surface Activity - The term describes the most fundamental property of detergent, for once the chemical has wetted out and penetrated the soil, surface active qualities form a chemical bond between the surface of each dirt particle and the water surrounding it with this action completed, the soil can then be easily wiped or rinsed away.

Surface Tension - Surface molecules form an encasing film on the liquid which is relatively tough (i.e. surface tension holds a drop of water "doesn't seek its own level"). The surface tension of a liquid may be changed by dissolving substances in the liquid.

Surfactants - Are classified by their ionic (electrical) charge. Anionic surfactants have a negative charge. Anionic surfactants are effective in removing particulate (dirt, dust, etc.) and oily soils. Soap is the original anionic surfactant. Cationic surfactants have a positive charge. In hard surface cleaners, they can be used as effective antimicrobial agents.

Nonionic surfactants do not have an electric charge. Because of this, they tend to be less seriously affected by water hardness. In general, they are low foaming and are especially useful in products which are designed to require little rinsing.

Suspension - The process of a cleaning agent holding insoluble dirt particles in the cleaning solution and keeping them from redepositing on a clean floor.

Sustainable - A term made popular by the United Nations' World Commission on Environment and Development (the Brundtland Commission). The Commission defined sustainable development as "development which meets the needs of the present without compromising the ability of future generations to meet their own needs".

Synergistic - Is the ability of two or more ingredients to cause an action which is greater than the sum total of the individual ingredients.

T

Tackiness - A sticky or adhesive condition that is a property of applied floor finishes when not completely dried.

Tack Rag - A cloth, dampened in solution, that is used to remove surface particles (lint, dust, floor pad abrasive) prior to refinishing a surface.

Glossary

Temperature - Generally speaking, the temperature of a solution is very important to the cleaning process. A rule of thumb is that the cleaning efficiency is doubled for every 20 degrees F. rise in temperature. Thus a high temperature cleaner will normally be twice as effective at 160^o as it will be at 140^o and so on.

Terrazzo - A non-resilient floor material composed of marble and Portland cement.

Thinner - A liquid used to reduce the viscosity of a coating and that will evaporate before or during the cure of a film.

Thermoplastic - A polymer which softens when exposed to heat and returns to its original condition when cooled to room temperature. The polymers resins and waxes used in floor polishes are thermoplastic.

Threshold Limited Values (TLV) - The air concentrations of chemical substances to which it is believed workers may be daily exposed without adverse effects.

Toxic - Harmful to health. The word is poorly defined. Almost any substance can be toxic if ingested in sufficient quantity. A toxin (of poison), is defined as being a chemical which has an LD50 of 50 milligrams (mg) or less of chemical per kilogram (kg) of body weight. (50 mg/kg is equal to a dosage of approximately 3/4 of a teaspoon for the average adult and 1/8 of a teaspoon for the average two-year-old child). Acute toxic effects are health effects experienced soon after exposure (i.e. within hours or days). Chronic toxic effects - not nearly so exact a science as the study of acute effects - are health effects which are experienced after a relatively long period of exposure (i.e. months or years).

HHRA (Human Health Risk Assessment) synthesizes all existing knowledge about a product and then assesses its impact upon a particular resource by comparing it to typical risks in everyday life.

Aquatic toxicity - looking at the impact in scientific terms by considering the LC50 value for aquatic life.

LC50 - expresses the toxicity of chemicals to fish or other aquatic organisms. In aquatic studies, LC refers to the lethal concentration of a chemical which has been dissolved in water. What it measures is the impact that chemicals have on fish, on algae growth, and on "bottom of the food chain" species such as daphnia.

Traffic Lane - High traffic areas that show worn or soiled "lanes".

Tri-sodium Phosphate (TSP) - A highly alkaline water softener sometimes used as a cleaning agent.

Tuberculosis - An infectious disease, primarily an infection of the lungs but any organ system is susceptible so its manifestations may be varied. It is slightly on the rise in the U.S. because of HIV infections. TB is transmitted by airborne droplet nuclei produced when an individual with active disease coughs, speaks or sneezes. It is estimated that inhaling 10,000 cubic feet of air from someone with TB would result in only a 50 % chance of becoming infected.

TWA - Time Weighted Average exposure is the airborne concentration of a material to which a person is daily exposed, average over the total exposure time. Exposure for more than 8 hours per day or more than 40 hours per week, even at or below the TLV or PEL, may represent a health hazard.

U

U.L. - Underwriters Laboratories. An organization that tests manufactured products for safety.

U.S.D.A - United States Department of Agriculture, which approves meat and poultry plant cleaners.

Use-Dilution - The final concentration at which a product is used.

V

Vinyl Asbestos Tile (VAT) resembles asphalt tile so closely, it is difficult to distinguish between the two. Vinyl type resins are used as the binder instead of asphalt resins, contain asbestos, pigments and inert fibers; usually the colours are brighter than asphalt.

Virus - A group of filterable infectious agents that require the presence of living cells in order to multiply.

Viscosity - The thickness of a liquid which determines pourability. The resistance to flow is measured in relationship to water in centipoise (cp). Water has a viscosity of 1 cp.

Vitreous China - Ceramic, non-porous material used in toilets and urinals.

Volatile - The part of a product that evaporates during drying.

Volatile Organic Compounds (VOCs) Are the solvent portions of products which flash off into the air. They are used in cleaning agents, as a leveling agent, as a gloss enhancer, as fast or slow drying agents, as carrying agents and in products that are designed to promote better solubility. VOCs are directly responsible for outdoor air quality when they combine with nitrogen oxide (the bi-product of the fuel that automobiles burn). The two products combine to produce ground level ozone or smog. VOC standards are measured in grams of VOCs per litre of finished product.

W

Waterborne Coatings - A coating containing more than 5 weight percent water in its volatile fraction.

Water Hardness - A measure of the amount of metallic salts found in water. Hard water can inhibit the action of some surfactants and reduce the effectiveness of the cleaning process.

Waterlift - An efficiency rating for vacuums used to pick up water. Tells how many inches the water would be raised if "lifted" in a measuring column.

Water Resistance - The ability of a floor finish to be unaffected by water spilled on it.

Water Spotting - Change in appearance of a surface finish resulting from spot wetting by water.

Wetting Agent - A chemical which reduces surface tension of water, allowing it to spread more freely.