A.C.L.
Applied color lettering. Colored lettering or design of a ceramic nature fused onto bottles. Employs screen printing to transfer glass frit (powdered glass colorant) to the surface of a bottle or glass container. The design is fired, heated in a lehr, and becomes permanently fused.

ABS
Acrylonitrile-butadiene styrene (ABS). Tough, hard, rigid, opaque plastic easily fabricated by injection molding, extrusion and thermoforming. More costly than general purpose and impact grades of polystyrene. Of limited use in packaging.

Accelerated Test
Laboratory performance test of a container or coating to evaluate its performance in a shorter time interval than that required under actual service conditions. Example: Performing chemical-resistance tests at elevated temperatures.

Acid Rain
Acid rain refers to a mixture of wet and dry deposition (deposited material) from the atmosphere containing higher than normal amounts of nitric and sulfuric acids. The precursors, or chemical forerunners, of acid rain formation result from both natural sources - volcanoes and decaying vegetation - and man-made sources - primarily emissions of sulfur dioxide (SO2) and nitrogen oxides (NOx) resulting from fossil fuel combustion. When fossil fuels are combusted, acid-forming nitrogen and sulfur oxides are released to the atmosphere. These compounds are transformed in the atmosphere. These compounds are transformed in the atmosphere, often traveling thousands of kilometers from their original source, and then fall out on land and water surfaces as acid rain. Acid rain is best known for the damage it causes to forests and lakes. Less well known are the many ways it damages freshwater and coastal ecosystems, soils and even ancient historical monuments, or the heavy metals these acids help release into groundwater.

Acrylic
Thermoplastic materials, such as Lucite and Plexiglas, made by polymerization of monomeric esters of acrylic acids.

Acrylonitrile
Abbreviation AN. Rigid, natural crystal color, transparent, generally excellent barrier properties, fair resistance to water permeation, good impact strength. Used in thermoforming.

Additive
A material such as a hardener, softener, preservative, slip agent, etc., added to a base material in order to achieve a specific result.

Adhesive Bleed
Exudation, or ooze, especially from pressure-sensitive label material. It is the result of cold flow, excessive roll winding tension, excessive heat or improper converting procedures.

Aerosol
Describes any container which consists of (1) a gas-tight, pressure resistant container, (2) a valve (3) a

desired product, and (4) a self-contained propellent which forces the product from the container when the valve is opened. Products dispensed from aerosol packages include true aerosols, "wet" sprays (coarse particles), foams, pastes, syrups and powders.

Aerosol Components
Extruded aluminum containers, plastic coated bottles, closures and overcaps. Aerosol bottles and containers are available in various sizes, shoulder configurations, diameters, and neck finishes. Decorating options are available.

Aerosol Propellents
Liquefied or compressed gases that are packed with a product in a pressure-propulsion container in order to provide sufficient pressure to propel the product through a valve to give the form of discharge desired.

Aerosol Services
The filling of aerosol products, either customer-supplied or original formulations. Decorating options are available.

A-Flute
A piece of corrugation with a height of 3/16 inch excluding the facing, generally spaced about 33 to 39 flutes per foot.

AlphaSeal
A Unipac (formerly 3M Cap-Seal) product. A range of one piece lining materials with a substrate choice of either unbleached virgin pulpwood or folding box board. Both conform to the stringent requirements of food approval bodies in a majority of countries. Can be used to line plastic and metal closures. The functionality of the AlphaSeal liner depends on the facing material applied to the pulpwood or box board substrate. Choices for facing material include polyester, PVDC, Saran, aluminum/foil/polyester, SA-66, univinyl, or aluminum foil. Depending on facing material selected, the AlphaSeal provides a general purpose sealing of bottles containing wet or dry products, solvents, weak acids and alkalines, and can provide a gas barrier.

Alternative Fuels
Alternative fuels, as described by the U.S. DOE, include bio-diesel, electricity, ethanol, methanol, natural gas, propane and hydrogen. Some alternative transportation fuels, such as ethanol and bio-diesel, are renewable while others, such as propane and natural gas, are non-renewable.

Amber Glass
A brown-colored glass used principally for beer, medicine and liquor containers. The color decreases the effect of some forms of light which would be injurious to the contents of the container.

Ampul
Also ampoule, ampule, ampoul. A relatively small container made from a glass or plastic tube, the end of which is drawn into a stem and closed by fusion after filling. The bottom may be flat, convex or drawn out as required. Opening is achieved by breaking the stem.

Ampules/Accessories
Glass and plastic ampules, and accessories such as holders, breakers, sleeves, etc.

AN
Acrylonitrile. A monomer with the following properties: rigid, natural crystal color, transparent, generally excellent barrier properties, fair resistance to water permeation, good impact strength. Material used in thermoforming.

Animal Healthcare Products
Injection molded plastic items, such as open-tip syringes, nasal inoculation syringes and bolus dispensing guns, are available in USDA/FDA compliant and approved resins.

Anneal
A controlled temperature process in which glass is gradually cooled in ovens or lehrs to avoid the creation of stresses and strains within the glass due to natural or uneven cooling. The annealing temperature in glass is about 1000 degrees F.
View the Annealing Glass Video >

Antioxidant
A chemical substance that can be added to plastic resin to minimize or prevent the effects of oxygen attack on the plastic (e.g., yellowing or degradation). Such chemical attack by oxygen may render a plastic brittle or cause it to lose desired mechanical properties.

Anti-Skid Corrugated
Corrugated board with embossed or chemically-treated surface, to increase coefficient of friction, so containers made from the treated board will produce a more stable pallet or unit load.

Antistatic Agent
A substance applied to the surface of a plastic article, or incorporated in the plastic from which the article is to be made, so as to render the surface of the plastic less susceptible to accumulation of electrostatic charges which attract and hold fine dirt or dust on the surface. There are two types: (1) metallic devices, and (2) chemical additives, either internal or surface applied.

Applicator Cap
A container closure designed so that it may be used to apply the contents of the container, such as oil and grease spouts or daubers.

Applicator Rod
Short glass rod 2 mm to 4 mm in diameter used in conjunction with an applicator cap. The end which enters the cap is cut square. The other end may have a variety of glazed finishes.

AQL
Acceptable quality level. The maximum percentage or proportion of variant (or defective) units in a lot or batch that, for the purposes of acceptance sampling, can be considered satisfactory as a process average.

Aromatherapy Packaging
Items used to package aromatherapy products, including glass and aluminum bottles, vials, perfume samplers and candle holders.

Aseptic Packaging
A technique for creating a shelf-stable container by placing a commercially sterile product into a

commercially sterile container. The process involves sterilizing a product and its intended container (usually separately) and then bringing them together within a sterile environment for filling and sealing. The sealed container is designed to maintain a sterile product until the seal is broken. In addition, when packaged aseptically, the product does not require refrigeration until the package seal is broken. Used for drink boxes, wine (bag-in-box), tomato products and soy milk.

Assembly
A wide variety of assembly services such as collating, filling, gluing, labeling, bagging, shrink wrapping, bag sealing, blister sealing, display assembly, package assembly, inspection, and bulk mail preparation are available. Some companies follow strict anti-contamination procedures to ensure a clean pack.

Atomizers
Various styles of atomizers and purse sprayers are available, including metal, aluminum, molded glass, plastic, and pastel enamel.

Autoclavable
Products produced from resins that can withstand 250 degrees for 45 minutes.

Autoclave
A pressure vessel into which steam or other vapor can be introduced at a suitably high temperature to sterilize packages or other objects placed therein. Similar pressure vessels used for sterilizing food products packed in glass jars or cans are normally called retorts.

Average Wall Thickness
A number obtained by adding the thickest wall section measurement of a container to the thinnest wall section and dividing by two. It does not describe the distribution of plastic material in a container.

Avoirdupois Weight
System of weights used in Great Britain and U.S. for the measure of goods other than gems, precious metals and drugs. Designated by "oz" or "oz av" and "lb" or "lb av". Sometimes, when a container is meant to hold a specific product such as honey or talcum powder, the bottle capacity is stated in auvoirdupois ounces rather than in fluid ounces. For example, a typical 1 lb. honey bottle holds 11 to 12 fluid ounces.

Letter B

Baby Bottle Nipples
Plastic baby bottle nipples are available in various styles.

Back Off
Loosening of cap; can be caused by improper cap application torque, improper mating of the cap to the container, or improper liner facing and/or backing.

Backing Liner
The compressible paper material, usually pulp or newsboard, to which the liner is attached or adhered. This compressible paper material compensates for any irregularities on the sealing surface. Also provides additional strength, or water resistance, or better appearance.

Baffle Mark
A bottom defect. A seam occurring between the baffle and the blank mold.

Bag-In-Box
A sealed, usually spouted plastic bag inside a rigid outer container, generally used for packaging liquid products of varying viscosities. The outer box may be disposable or reusable. The container itself may be be either partially emptied and resealed or may never be opened to ambient air (i.e., wine boxes). Consumer sizes usually range from one to six gallons while process and transportation sizes range from 55 to 300 gallons.

Bags
Stock and custom polybags, shrink bags, shipping bags, protective mailing bags, bags with air vent holes, currency bags, anti-static bags, double-wall bags, trash can liners, recycled bags, specimen/bio-hazard bags, ice bags, ziplock bags, vinyl cosmetic bags, garment bags, sports bags, specialty bags, cloth bags, reclosable bags, and bags made with specialty films. Graphics and color printing options are available.

Bail
Wire handle for carrying purposes, with or without grip, fastened to ears that are riveted or welded to opposite sides of a container.

Banding
Banding is used to unitize a product for shipment. Steel, plastic and cord banding is available along with seals and buckle and strapping tools.

Bar Code
An identification symbol where the value is encoded in a sequence of high contrast, rectangular bars and spaces. The relative widths of these bars and spaces contain the information. Identification is by visual or electronic means.

Barex
Barex is a polymer composed primarily of acrylonitrile, with methylacrylate and butadiene as comonomers. It offers excellent gas barrier properties, good impact and chemical resistance. Barex containers are used for many agricultural chemicals. Barex is a registered trademark of BP Chemical Inc.

Barrels, Wood
Wine barrels, garden barrels, and food storage barrels are available, some with plastic or paraffin liners.

Barrier Material
Term used to prescribe one of two classes of specialized packaging materials that provide environmental protection to the package contents: (1) gas-, moisture-, or light-proof materials that control or eliminate the amount of these environmental constituents that pass into or out of a package; (2) a porous material possessing a structure that prevents the passage of microorganisms that might contaminate the contents of a package.

Baseline Performance
Baseline performance is the benchmark against which future measurements can be compared over time.

Baskets, Dipping
Steel, HDPE and P/P baskets for washing, storing and autoclaving laboratory ware.

Baskets, Jewelry
P/P and P/E baskets to insert in wide mouth jars for cleaning jewelry.

Bead
A narrow, round projection above or below the surface.

Bent Finish
A finish defect. A finish which has a bent or crooked appearance. Also called "crooked finish".

Bent Neck
A neck defect. A neck where the finish is tilted to one side, preventing filling of the bottle.

Bevel
The sloping edge of a container or part. A bevel adds a short flat span at the junction of two sides of a container.

B-Flute
A piece of corrugation with a height of 3/32 inch excluding the facing, generally spaced about 47 to 53 flutes per foot.

Bins, Storage
Intended for storage and retrieval of hardware and small parts. Available in plastic, recycled plastic and corrugated cardboard. Can be used on shelving, stacked, or hanging from panels.

Biobased
A product determined to be a commercial or industrial product other than food or feed that is composed, in whole or in significant part, of biological products or renewable domestic agricultural materials (including plant, animal, and marine materials) or forestry materials.

Bioburden
The relative number of actual or suspected microorganisms of whatever type found on a specific article at a specific time. May also apply to the level of microorganisms found in a specific area during a procedure such as air sampling.

Biodegradable
The degradation of material from naturally occurring microorganisms, such as bacteria, fungi or algae over a period of time.

Bio-fuel
Bio-fuel is fuel derived from organic matter (obtained directly from plants,* or indirectly from agricultural, commercial, domestic and/or industrial wastes) instead of from fossil products.

*The environmental, economic and social impacts of corn-based bio-fuel should be considered when comparing it with traditional fuels.

Bird Swing
An edge or side defect. A string of glass extending across the inside of the bottle.

Black Spots
A general defect. Small black specks in the glass.

Blake
A particular style of straight sided oblong bottle used primarily by pharmaceutical concerns. Also called space saver and wide mouth packer.

Blank Seam
An edge or side defect. A seam which is relatively large, extending from the shoulder to the bottom of the container. Also called "mold seam".

Bleached Pulp
Any type of pulp whitened by an oxidizing treatment, usually with a hypochlorite or hydrogen peroxide solution, or by a reducing treatment such as with sulphur dioxide or sulphites.

Blister Packaging
A product is secured between a preformed (usually transparent plastic) dome or "bubble" and a paperboard surface or "carrier". Attachment may be by stapling, heat-sealing, gluing, etc.

Blister Packs
A form of packaging and displaying merchandise in which the merchandise is sealed into a transparent molded plastic blister shaped to accommodate the merchandise with a foil or cardboard backing.

Blisters
A general defect. Relatively large bubbles in the glass.

Blow Molding
A method of fabrication in which a warm plastic parison (hollow tube) is placed between the two halves of a mold (cavity) and forced to assume the shape of that mold cavity by the use of air pressure.

Blow Pin
Part of the tooling used to form hollow objects or containers by the blow molding process. It is a tubular tool through which air pressure is introduced into the parison to create the air pressure necessary to form the parison into the shape of the mold. On some blow molding systems, it is a part of, or an extension of, the core pin.

Blown Glass
Containers manufactured from molten glass that are formed by air pressure, in molds, similar in fashion to plastic molding. The finished containers are ejected or extracted from the mold, then annealed (heated and cooled) to temper the glass.

Blushing
A surface whitening or discoloration of a plastic bottle. It is the result of physically induced (i.e., by impact) or chemically induced phase separation of the (1) ingredients in the plastic mold compound or (2) the molecular orientation of the plastic.

Board
A heavy weight thick sheet of paper or other fibre substance (from 0.012 to 0.030 inches and up).

Variations: cardboard (non-specific term), chipboard, fibreboard, paperboard, containerboard, boxboard, tagboard.

Boston Round
A style of bottle characterized by a round cylindrical shape with a short curved shoulder. Typically used by the drug and chemical industries.

Bottles, Aluminum
Various diameters, shoulder configurations and container mouth sizes are available along with 7 to 8 color printing.

Bottles, Glass
In addition to the glass manufacturers found in the Glass Bottle and Jar portion of RapidFind, these additional vendors offer an assortment of glass bottles for the cosmetics, pharmaceutical, and food and beverage industries. Included are safety-coated bottles, 24% lead crystal bottles, and exotic-shaped, foreign-made bottles. Various decorating options are available on some items.

Bottles, Plastic
In addition to the manufacturers found in the Plastic Bottle and Jar portion of RapidFind, these vendors offer a large selection of stock and custom plastic bottles for the pharmaceutical, animal care, chemical, industrial, automotive, hazardous materials, cosmetics, food, household and personal care markets. Various shapes, sizes, neck finishes, resins (HDPE, LDPE, P/P, P/E, P/S, PET, PVC, PCR, EVOH, EVA, K-Resin, high gloss, nylon, polycarbonate), as well as decorating options are available.

Bottom Plate
The part of the mold which contains the heel (base) radius and the "push up" of the container to be formed.

Boundary and Scope
Boundary and scope are terms used in measurement processes to define the physical and functional attributes and conditions and the timeframe that will be included within the parameters of the measurement project.

Boxes, Paper
Paperboard, laminated recycled paperboard, folding cartons, as well as partitions and inserts. Color press printing is available.

Boxes, Plastic
Carrying cases, luggage, food storage containers, tote boxes, reshipper containers, powder boxes, pill boxes, hinged-lid containers, school supply boxes, lunch boxes, cosmetic and jewelry boxes, tool storage boxes, fish boxes and freezer boxes. Various shapes and colors are available, as well as decorating options.

Broken Finish
A finish defect. A finish which has cracks or actual pieces of glass broken out of it.

Broken Ware
A general defect. Ware which is cracked or broken into pieces.

Broker, Customs
Brokers licensed to help facilitate the importing and exporting of goods.

Brown Silite
A SANCAP Liner Technology product. An oleoresinous coated brown Kraft paper. Brown Silite is a dark brown paper coated with a multicoat resinous coating. Color: Brown. Suggested product uses include maple syrup, auto polish, floor wax, industrial oil, insecticide, linseed oil, motor oil, paint, paint remover, shoe polish, stencil ink, varnish and turpentine.

Bruise Check
An edge or side defect. Fine and shallow check which appears on the side or edge of the ware.

Brush Marks
A general defect. Fine vertical laps in the side or neck of a container.

Brushes
Cosmetic, manicure, dental, jewelry cleaning, medical applicator, nail polish plug, bath scrub, wood handle, acid, and twisted wire brushes.

Bubble Pack
A type of cushioning material that is made by trapping air between two layers of plastic material and using the "bubbles" to protect products inside their shipping containers. See blister packaging.

Bulged Finish
A finish defect. A finish which is blown out of shape.

Bung
A plug used to close a barrel or drum bung hole. Called a plug when referring to a steel drum closure.

Burn Line
A dark streak of material in a plastic bottle resulting from decomposed material dislodged from the extruder and incorporated in the bottle.

Butterchipboard
Butterchipboard is a pigmented chipboard which is smooth on both sides. It is used as a backing material to which facings are laminated in the manufacture of duplex liners. Butterchipboard can be laminated to aluminum foil, heat seal constructions and coated with a release coating. Thickness and color is available as specified.

Buttress Thread
A design of thread profile (cross section) which takes the form of a right triangle or slight modification of that form. It is usually positioned so that the right angle is at the bottom of the thread cross section and adjacent to the neck of the bottle finish. The horizontal leg of the right triangle is the bearing surface for a matching cap thread. The thread sides terminate abruptly in threading, gradually tapering down to the neck finish. The buttress thread is designed to withstand maximum force in one direction only.

Letter C

Can Closures
Stock and custom can closures in a variety of sizes.

Candle Holders
Glass, leaded glass, and plastic candle holders are available in a variety of styles, including tabletop, aromatherapy, etc.

Canning Supplies
Mason jars and closures.

Cans, Composite
Cans produced from paper and other material, such as foil, wax, plastic or a glassine paper protective barrier, by wrapping around a mandrel. This is done either spirally (i.e., paper towel roll), or convolutely (i.e., carpet roll).

Cans, Fiber
Rigid cans made of compressed paper (plant fiber) material. Metal or plastic end caps available.

Cans, Metal
Stock and custom styles, including cone top, aerosol, F-style, easy open, open top, brush top, wing-open, tennis ball, paint, utility, seamless, oblong, TT and slip cover. Various shapes, sizes and decoration options are available.

Cans, Plastic
Stock and custom styles, including cone top, aerosol, F-style, 5 gallon square, paint and utility cans.

Cap Seat
The ledge inside the mouth of a bottle, such as a milk bottle, to receive a plug closure.

Capacity
The volume of space inside a container provided for a given amount of product. Note the difference between capacity and overflow capacity.

Caps
Stock and custom specialty caps made of metal, plastic, rubber, paper, neoprene or silicone intended to slip on to or insert into the end of any object to close packages such as mailing tubes or the rigid plastic tubes for displaying merchandise such as nuts or bolts, or to protect the object itself.

Cap-Seal II
3M's Cap-Seal II 4320 is an all-purpose P/E synthetic foam closure liner material. If offers excellent chemical resistance and gasketing properties. #4320 is ideal for applications on glass and plastic containers with metal or plastic closures. Typical uses include water, bleach, ammonia, 5% acetic acid, liquid detergent, shampoo and cough syrup.

Carboy
A bottle or similar container made of glass, plastic, metal or clay, having a capacity of 3 to 13 gallons. Where the carboy is used for shipping purposes, it is usually designed to be encased in a rigid protective outer container for shipment, often with the use of cushioning materials prescribed by DOT specifications, particularly when the carboy contains dangerous liquids. Carboys are also used for local shipment of springwater, distilled water and drinking water where no protective container is used or only a simple outer container from which the carboy is removed for dispensing purposes.

Carts, Metal
Metal carts used in manufacturing and distribution. Options include casters for ease of movement, shelves for visual inventory, and collapsible for returnable packaging.

Case Sealer
A machine for closing the flaps of a case and sealing them with adhesive, tape, or staples. Case sealers differ in capability of accepting one size or random sizes, and sealing only top flaps, or top and bottom, with or without load.

Casing
A light-gauge (24-gauge or lighter) metal drum for packaging heavy viscous, semi-solid, or solid materials, such as asphalt, tar, wax, etc.

Catalyst
A chemical substance that speeds up or retards a chemical reaction and does not itself take part in the reaction. A catalyst, when added to coating material, will promote cure of coating at lower than normal bake time or temperature, or both.

Cavity
In plastic blow molding, the parts of the mold that combine to provide the container body shape.

CC
Cubic centimeter. A unit for measuring volume, where 1 cc = 0.0338 ounce.

CCP
Clay Coated Pulp (CCP). A backing material to which facings are laminated in the manufacture of duplex liners. CCP is pulpboard with a white clay coating on one side. The clay coating is used to prevent discoloration and the absorption of wax. Thickness is per specification.

CE-50
Solid extrusion blend of polyethylene and polyisobutylene.

Cellophane Tape Test
A quick but not precise method for examining the adherence of printing on plastic films. A piece of cellophane adhesive tape, or other pressure-sensitive tape, is adhered to a section of printing and then pulled off in one motion to see whether or not the ink will come off with it. The speed of the pulling is important.

Cellulose Band
A band made of hydrated cellulose film that is extruded in continuous tubing form. The cellulose tubing is then processed and printed in this form and cut into individual bands of predetermined lengths. When the Celon is applied to the finish of the container, it is allowed to air dry. During this air-drying period, it shrinks to form a skin-type film over the neck finish of the container.

Ceramic Labeling
A process of labeling glass containers with a label composed of colored glass that is fused to the container.

Cert. of Compliance
Certificate of Compliance. A document signed by an authorized party affirming that the supplier of a product or service has met the requirements of the relevant specifications, contract or regulation.

C-Flute
A piece of corrugation with a height of 9/64 inch excluding the facing, generally spaced about 39 to 45 flutes per foot.

Checked Bottom
A bottom defect. A small check that occurs on the rounded portion of the bottom near the contact surface.

Checked Finish
A finish defect. A finish which has a light, bright check in the threads or in the middle of the finish.

Checks Under Finish
A finish defect. Horizontal checks which occur on or near the parting line between the neck and the finish.

Chemical Oxygen Demand (COD)
Chemical oxygen demand is a measure of the oxygen-consuming capacity of inorganic and organic matter present in water or wastewater. it is defined as the quantity of a specified oxidant that reacts with a sample under controlled conditions. The quantity of oxidants consumed is expressed as a rapid indicator of organic pollutants in water. COD is expressed as mg/LO2.

Chemical Resistance
Ability of a material to retain utility and appearance following contact with chemical agents. Chemical resistance properties include stain resistance, swelling resistance, moisture resistance, corrosion resistance, etc.

Child Labor
Consistent with International Labor Organization (ILO), child labor is defined as any work performed by a child younger than 15 years of age or younger than the age of compulsory schooling in a locality if that age is greater than 15 years; and/or any work, which by its nature or circumstances may jeopardize health or safety, performed by a young person under the age of 18 years.

Child Resistant Cap
Also CRC. A closure that requires dissimilar motions which make removal by a child difficult and is compliant with the Code of Federal Regulations Title 16, Part 1700.

Chipboard
A low quality non-test paperboard made of waste paper for use where specified strength or quality is not necessary. May be bending or non-bending, used for corrugated pads or as dividers, or as filler in thicker paperboards. Also used in the manufacture of spiralwound cans.

Chipped Finish
A finish defect. A finish from which a small section is broken on the top or side.

Choked Neck
A narrowed or constricted opening in the neck of a container.

Chuck
A clamping device designed to tighten screw caps.

Clean Room
Assembly and packing services in clean room facilities using anti-contamination procedures.

Cleaning Services
Container cleaning services utilizing various cleaning methods including ultrasonic solvent cleaners.

Cleaning Systems
Automatic cleaning and drying systems for sanitizing plastic and glass bottles, a cleansing aid for orthodontic braces, toilet bowl chemical dispensers, and drain and odor control systems.

Closed Loop System
Closed Loop System refers to an industrial system that functions within a zero-waste supply chain that completely reuses, recycles or composts all materials.

Closure Plugs/Fitments
Any of various styles of plastic and metal closure plugs and fitments intended to reduce the size of a bottle neck finish for a more controlled dispensing of product. Plugs and fitments are available for a wide variety of end uses.

Closures
Stock and custom closures, including plastic, glass, rubber, metal, dispensing (hinged top, snip top, disc top, thread, snap-on, push/pull), conventional (ribbed, fluted, smooth), specialty (bleach, brush well, jigger, button seal, aerosol, perforated), linerless, lined, applicator, decorative, child resistant, tamper evident, heat seal, crimp-on, and a Counter Cap closure.

Closures w/Europa Threads
Closures with a specific thread configuration standard called Europa. Various Europa thread sizes are available.

Closures, Aluminum
Anodized and solid aluminum decorative closures.

Closures, Applicator
Styles include straight brush, bent brush, dauber, wick, glass rod, nail polish and cosmetic applicator closures.

Coatings
Liquid, wood and powder coatings for metal and wood materials. Liquid coatings offered include water-based, high solids air dry, 2-component epoxy, acrylic urethane, high solids bake, low H.A.P.'s, and fast dry enamel. Wood coatings available include lacquer, pre-catalyzed varnish, conversion varnish, low H.A.P.'s, waterborne acrylic, water-based stain, and solvent-based stain. Powder coatings include polyester, TGIC polyester, TGIC FREE polyester, epoxy and hybrid.

Co-Extrusion
Extruding two or more layers of thermoplastic materials to form a combined film sheet or molded unit. Limited to plastics.

Coil, Pharmaceutical
The textile ball inserted into pharmaceutical bottles after filling with a solid product. Most commonly seen in aspirin, vitamin and other pill bottles. Cotton, polyester and rayon coil are available in various weights.

Collapse
Contraction of the walls of a container (e.g., upon cooling) leading to permanent deformation of the container.

Collapsible Core Mold
Mold action in the manufacture of closures. This technology utilizes a three part core. After the cavity is removed following the injection cycle, the center portion of the core (core wedge) retracts while the two outer core halves move radially inward. Once the closure thread is cleared, the stripper sleeve moves forward to eject the closure.

Collapsible Tube
Cylindrical container of thin, flexible metal with integral shoulder and neck, with a screw cap closure made of plastic. Collapsible tubes can also be made of paper, films, plastics, etc. They may have wax, resin or lacquer linings. Collapsible tubes are usually filled through the bottom and subsequently closed by multiple folding of the bottom, or crimped with a metal clip or sometimes welded tight.

Collective Bargaining
Collective Bargaining, consistent with ILO conventions, is defined as the negotiations of a contract for labor between an employer or group of employers and one or more worker organizations, which specifies the terms and condition of employment.

Color Concentrate
A measured amount of dye or pigment incorporated into a predetermined amount of plastic which is then "let down" (mixed) into larger quantities of virgin plastic material to be used for molding. The "concentrate" is added to the bulk of plastic in a measured quantity in order to produce a precise, predetermined color of the finished articles to be molded.

Color Concentrates
A variety of color concentrates are compatible with P/E, P/P, P/S, PVC, ABS, PC, acrylic, acetals, polycarbonate, PET and PBT polyester resins, SAN, nylon, celluloses, and olefin. Additives include UV stabilizers, lubricants, and antistats. Special effects, such as marble, flecks, granites, speckles and pearls are available.

Column Crush
A test performed on a small sample of corrugated which is a measure of the compression strength of that sample. Also referred to as edge crush and short column crush.

Compatibility
Ability of a container, whether lined or unlined, to resist degradation of or by the product contained.

Composite Can
A rigid container with the body made of fibreboard or fibreboard in combination with other materials such as metal foils or plastics. One or both ends may be made of metal, plastic or other materials.

CompositionCork
Composition Cork is a backing material to which facings are laminated in the manufacture of duplex liners. It consists of cork particles (flakes and granules) bonded together with a thermosetting synthetic resin.

Compostable Plastic
Plastic that undergoes degradation by biological processes during composting to yield CO2, water, inorganic compounds, and biomass at a rate consistent with other known compostable materials and leave no visible, distinguishable or toxic residue.

Compound
The resin, along with modifiers, pigments, antioxidants, lubricants, etc., which are to be molded or blown into final form.

Compression Molding
A method of forming objects from plastics by placing the material in a confining mold cavity, then applying pressure, and usually heat.

Containers, Hinged Lid
Any container with a lid attached by means of a hinge. Cosmetic compacts and accessory cases, carrying cases, luggage, lunch boxes, attache cases, and recyclable containers. Various sizes and colors are available, as well as decoration and custom design.

Containers, Shipping
Steel, plastic, composite and fiber drums, rigid and flexible industrial bulk containers, corrugated, paper, foam and plastic boxes, overpacks, insulated containers, dry ice storage chests, tubs, metal and fiber cans, plastic reshipper containers, steel and plastic pails and carboys.

Continuous Thread
An uninterrupted protruding helix on the neck of a container to hold a screw-type closure. Continuous thread finishes have GPI finish designations in the 400 series. See Also CT.

Contract Packaging
Assembling, labeling, packaging, shrink wrapping, filling, stapling, sampling, material blending, palletizing, poster rolling, warehousing, fulfillment, coding, package design, collating, bagging, blister sealing and bulk mail preparation. Can provide either mobile or stationary contract packaging services for some industries. Strict anti-contamination procedures are available for items requiring such packaging.

Control Systems
Tooling, i.e., valves, tubing, spray nozzle systems, filters, pumps, etc., engineered for process industries.

Convolute Can
A can with the body made of fibreboard formed by convolute winding of paper to build up the required thickness.

Copolymer
A material whose chemical structure is made up of long chains of two differently structured chemical units (monomers), which repeat a more or less regular pattern in the chain. Also see Polymer.

Cord
Defect in glass containers. A narrow, stringy band of glass of a composition different from the rest of the glass surrounding it.

Cores, Paper
Varieties for packaging, commercial gift wrap and industrial applications.

Cork
A closure made of cork, or, by extension, any plug-type closure.

Cork Finish
A finish which is closed by means of a cork.

Corkage Check
A finish defect. A bright, light check which is not unusually deep and is located on the inside of the top of the finish.

Corks
Liquor, wine and beer corks. Cork stoppers available in various sizes.

Correction Fluid Package
The entire package required to market a correction fluid product used to white out text on printed material. The package includes a bottle, a neck finish plug to control dispensing, and a closure with brush attached.

Corrugated
Stock and custom shipping containers, merchandise displays, cartons, partitions, inserts, pads, book binding, recycled corrugated cartons and plastic corrugated reshipper containers. Printing, decorating and graphics are available.

Corrugated Board
A packaging material consisting of a central member (medium) which has been fluted on a corrugator and to which one or two flat sheets of paperboard have been glued to form single-faced corrugated board or double-faced (single wall) corrugated fibreboard. The combination of two mediums and three facings is called double wall and the combination of three mediums and four facings is called triple wall. Corrugated board is generally made in four flute sizes, designated A, B, C and E.

Cosmetic Cases
Items intended for packaging cosmetics, including lipstick cases, mascara cases, eye/lip pencils, blush pots, compacts, palette compacts, etc.

Cosmetic Liner
A SANCAP Liner Technology product. An aluminum foil / polyethylene / polyester liner bonded to pulpboard. The Cosmetic Liner is composed of aluminum foil laminated to polyester with white P/E and bonded to a specified solid pulpboard. Color: White. Suggested product uses include vegetable oils, lard,

floor cleaner, greases and various chemicals, such as acetone, benzene, chloroform, ethyl acetate, 18% hydrochloric acid and xylene.

Cover Backing
Material that is used to enclose an item within a blister pack. It is the material, such as hard or soft temper foil, foil/paper laminates, coated board, etc., that seals to the blister material.

Crab Claw Seal
Named for its shape, it is a thin flexible protrusion molded into a closure which will compress against a bottle sealing surface during normal capping operations. It prevents leakage and will seal a variety of bottles. The bottle land (the bottle's sealing surface) must be flat and free of defects because this sealing method requires compression to be effective.

Cratering
Small, thin or bare spots in an applied coating that have the appearance of pockmarks.

Crazing
Fine cracks which may extend in a network on or under the surface or through a layer of glass or plastic material.

CRC
Child resistant closure. There are several types that have been developed for products that constitute a hazard to small children. Basic principles of CRC's are (1) press-turn, (2) squeeze-turn and (3) combination lock and hidden key.

Crimp Seal
(1) Applying a seal of aluminum or coated aluminum foil by crimping with a die, generally corrugated. (2) A method of heat-sealing thermoplastic coated papers or thermoplastic films with the pressure exerted by knurled wheels or bars having a corrugated surface. (3) A small flat metal piece that is crimped mechanically to parts of flat strap to maintain tension and connect them permanently.

Crizzled Finish
A finish defect. A finish which has a multitude of fine surface fractures across the top.

Crooked Finish
A finish defect. A finish which has a bent or crooked appearance. Also called "bent finish".

Crown Cap
This is a crimped closure. Flutes are pressed into the flaring skirt of a shallow metal disk, which holds an inner disk of resilient lining material that forms the actual seal.

Crown Finish
The neck finish on beer and beverage bottles sealed with a crown cap.

CT Finish
Continuous thread finish. An uninterrupted protruding helix on the neck of a container to accommodate a screw type closure. Designed primarily to seal container finishes with the GPI finish number designations in the 400 series.

Cullet
Glass, from containers not approved by selectors, that has been crushed or broken and is added to the batch to be remelted and formed into new containers; or recycled broken glass that is used in the manufacture of new glass.

Cycle
A complete repeating sequence of the operation in a specific process in molding. Cycle time is measured by the elapsed time between one point in the cycle to the same point in the next cycle.

Letter D

D.O.T.
Department of Transportation. United States governmental body that regulates the shipment of materials on public right of ways.

D.O.T. 12A
Overpack carton for glass or D.O.T. 2E plastics.

D.O.T. 12P
Overpack carton for D.O.T. plastics.

D.O.T. 17C
Steel drum from 5 gallon to 55 gallon in size, O/H, single trip.

D.O.T. 17E
Steel drum from 5 gallon to 55 gallon in size, T/H, single trip.

D.O.T. 17H
Steel drum from 5 gallon to 55 gallon in size, O/H, single trip.

D.O.T. 21P
Overpack carton for D.O.T. plastics.

D.O.T. 2E
P/E molded container not exceeding 5 quarts, T/H. Requires overpack.

D.O.T. 2S
P/E molded container 5 gallon to 55 gallon in size, T/H, requires overpack.

D.O.T. 2SL
P/E molded container 13.5 gallon to 55 gallon in size, T/H, requires overpack.

D.O.T. 2TL
P/E molded container 5 gallon to 14 gallon in size, T/H, requires overpack.

D.O.T. 2U
P/E molded container 1 gallon to 55 gallon in size, T/H, requires overpack.

D.O.T. 34
P/E molded container 2-1/2 gallon to 30 gallon in size, T/H, reusable.

D.O.T. 35
P/E molded container NE 7 gallon in size, O/H, non-reusable.

D.O.T. 37A
Steel drum 2 gallon to 55 gallon in size, O/H, single trip.

D.O.T. 37B
Steel drum 5 gallon to 55 gallon in size, T/H, single trip.

D.O.T. 37C
Steel drum 5 gallon in size, O/H, non-reusable.

D.O.T. 37D
Steel drum 5 gallon in size, T/H, non-reusable.

D.O.T. 37P
Steel drum w/poly liner 5 gallon to 15 gallon in size, non-reusable.

Daubers
Normally part of an applicator closure. Popular for cosmetic, household and pharmaceutical products. Usually fitted with sponges or cotton, wool or felt pads, like those provided with liquid shoe polish or bingo ink bottles.

Debossing
Depressing (in a blanking die) a portion or portions of the cap below the ordinary surface level, usually to form lettering or decoration. Sometimes the background, rather than the lettering itself, is debossed, leaving the letters at the original level of the cap, thus giving the appearance of embossing; otherwise the lettering itself is pressed down, giving the appearance of engraving.

Decorator, Closure
Services include silk screening, hot stamping, pad printing and pressure sensitive labeling. Use of UV and conventional inks on automatic, semi-automatic and manual equipment.

Decorator, Glass Bottle
Services include silk screening, pressure sensitive labeling, ceramic decorating, acid etching, frosting, color spraying, heat transfer, hot stamping, therimage labeling, and pad print decorating. Use of UV and conventional inks on automatic, semi-automatic and manual equipment. Available on different sizes, styles and shapes.

Decorator, Plastic Bottle
Services include silk screening, heat transfer labeling, pressure sensitive labeling, hot stamping, therimage labeling, offset printing, pad printing, frosting and spraying. Use of UV and conventional inks on automatic, semi-automatic and manual equipment. Available on different sizes, styles and shapes.

Deep Skirt
A cap having a deeper skirt (more "H") and generally a heavier thread than the 400 finish series.

Deflashing
Any technique or method which removes excess material (flash) from a molded article, specifically from those places where parting lines of the mold may have caused the excess material to form.

Density
Weight of a gas, liquid or solid substance per unit of volume, expressed in grams per cc or pounds per cubic foot.

Dental Tools
Dental brushes, tips, and handles.

Deodorant Containers
Stock and custom deodorant sticks in round, oval or flat-pack design, with push-up or propel/repel assembly.

Depressed Thread
Thread on the finish of glass containers in which the thread is reduced in depth or "depressed" at the two points where the thread crosses the mold parting line.

Desiccant
A drying agent possessing a high affinity for water vapor, it is used to control the humidity level in sealed packages. Please read our white paper on Choosing In Wall Desiccants for more information.

Desiccants
Any of various materials used as drying agents during the packing process. Common desiccants include silica gel and calcium oxide. A wide choice of standard and custom desiccant items is available to accommodate any package. Please read our white paper on Choosing In Wall Desiccants for more information.

Destaticization
Treatment of plastic materials which minimizes the effects of static electricity on the surface of the articles. Can be accomplished either by spraying the surface with specific materials, or incorporating materials into the molding compound. Destaticization prevents dust and dirt from being attracted to and/or clinging to the surface of the article.

Die
Any tool or arrangement of tools designed to cut, shape, or otherwise form materials to a desired configuration.

Dimension "C"
The "C" dimension of a bottle is the opening control diameter (inside diameter) at the top of the neck finish.

Dimension "E"
The outside diameter of the neck. The difference between the "E" and "T" dimensions divided by two determines the thread depth.

Dimension "H"
BOTTLE "H" Dimension: The height of the neck finish. Measured from the top of the neck to the point where the diameter "T", extended down, intersects the shoulder. The bottle finish "H" must be greater than closure "H" (corrected for the thickness of the compressed liner or other sealing elements). CLOSURE "H": The "H" dimension is measured from the inside top of the closure vertically down to the bottom of the closure skirt. Effective "H" must take into consideration the liner, or other sealing

element, if one is used. To determine effective "H", liner thickness or other sealing element under compression must be determined and subtracted from unlined "H".

Dimension "I"
The minimum opening through the finish and neck expressed by measuring the inner diameter of the neck at its narrowest point. Specifications require a minimum "I" to allow sufficient clearance for filling tubes. Linerless closures, with a plug or land seal, and dispensing plugs and fitments require a controlled "I" dimension for proper fit.

Dimension "L"
L dimension is the minimum vertical dimension to the top of a concealed bead for closure thread clearance. It is measured from the top of the finish to the point where diameter "E" extended parallel to centerline intersects the bead.

Dimension "S"
Measured from the top of the finish to the top edge of the first thread. The "S" dimension is the key factor which determines the orientation of the closure to the bottle and the amount of thread engagement between the bottle and cap.

Dimension "T"
The outside diameter of the closure, including the thread. The tolerance range of the "T" dimension determines the mate between the bottle and the closure.

Dirty Finish
A finish defect. A finish which has a scaly appearance and which may even have black spots in it.

Dirty Neck
A neck defect. A neck which has a dirty or scaly appearance.

Dirty Ware
A general defect. Ware which has carbonaceous or dirty deposits on it.

Disc Top
Injected molded two piece dispensing closure. The one hand, one finger action closure has gained high consumer preference particularly on personal care and sun care products. Contrasting colors can be incorporated into the design by selecting different colors for the closure body and disc. Also called Press Top.

Discrimination
Discrimination, consistent with ILO conventions, is defined as treating people differently because of certain characteristics, such as race, color, or sex, which results in the impairment of equality of opportunity and treatment.

Displays, Merchandise
Literature displays, corrugated display cases designed for specific product lines, customized displays, plastic and wire displays, and cold-product displays.

Disposal
Disposal refers to any end-of-life management process including recycling, recovery for reuse, composting, incineration or landfilling, etc.

Distributor
In addition to the manufacturers included in RapidFind, a multitude of stock products is available through a distributor network. Items such as bottles, pharmaceutical supplies and equipment, drum handling equipment, container components, raw materials, laboratory supplies, packaging products, kitchenware, baby items, maintenance and safety supplies, wine and beer making equipment and supplies, veterinary products, food service products, painting products, shipping supplies, paper products, chemical products, nail care accessories and wood pallets, can be purchased and shipped from warehoused stock.

Dividers
A device, made of various materials, which separates the space within a container into two or more spaces, cells, compartments, or layers. Dividers may be plain, interlocking, scored, horizontal, vertical, or diagonal. The primary purpose of dividers is to separate the articles and/or to furnish cushioning.

Dome
A closure where the whole top surface is domed, starting at the shoulder. Doming adds to streamlining of package appearance and to the apparent height.

Down Finish
A finish defect. A finish which is incompletely filled.

Drag Marks
A general defect. A series of fine vertical laps near the shoulder or neck.

Drawn Container
A container made by the metal drawing process which consists of forcing a flat piece of metal into or over a die. This results in a container body with an integrated bottom end.

Drinkware, Glass
Promotional glassware, drinking jars, pitchers and milk bottles.

Drinkware, Paper
Paper cups and plastic-coated paper cups with lids.

Drinkware, Plastic
Tumblers, coffee mugs, stadium cups, promotional drink cups, juice cups, souvenir drink cups, and sports bottles.

Drop Test
Any test method in which the article being tested is dropped in a specified manner for a specified number of times or until the article fails from impact. Normally done in full cases from heights as specified by DOT specifications (10 points), but may be designed to incorporate effects of deacceleration, pallet loading, temperature, humidity, or other variables that could lead to product damage.

Dropper Bottles
A specific bottle style, available in glass and plastic, intended to accommodate closures with dropper squeeze bulbs and pipettes.

Dropper Unit with Pipette
A closure with an attached squeeze bulb and dispensing pipette intended for the cosmetics, pharmaceutical, medical, laboratory, and health and personal care markets. Various options available to suit individual package requirements.

Drum/Pail Accessories
Flanges, plugs, caps, lids, fittings, clips, vents, seals, seal removal tools, gaskets, liners, drum trucks, drum overpacks, funnels, containment units, pumps, pour spouts, spigots, wrenches and valves.

Drums
Steel, stainless steel, polyethylene, composite, and fiber drums. Styles include open and closed head, tight head, round, square, bulk, lined and unlined, seamed and seamless, lock-ring, drums with agitator assemblies, overpack/salvage drums, and reconditioned drums.

Dry Blend
Refers to a molding compound containing all necessary ingredients mixed in a way that produces a dry, free flowing, particulate material. This term is commonly used in connection with polyvinyl chloride molding compound.

DSB 1000
A Unipac (formerly 3M Cap-Seal) product. A two piece welded liner. DeltaSeal 1000 (DSB 1000) has a 0.70mm folding box board/polyolefin film/20 micron lacquered aluminum foil/heatseal coating construction. The overall caliper is 0.8mm. It seals to glass, PET, P/E and P/P. Good choice of lining material for dried powders and beverages in glass, and a range of foodstuffs packaged in a variety of plastics.

Letter E

Ear
(1) Ears are attached to metal pails to hold the bail or handle. (2) The name given to the finger grip of pressed glass between the shoulder and finish of a 1/2 gallon, gallon, or other glass jug to facilitate holding it.

Easy-Open End
A can end that is scored on the circumference and fitted with a gripping device (tab) for easy removal of end.

EBM
Extrusion blow molding. A parison is extruded into a mold cavity and then blown into a bottle.

E-Flute
A piece of corrugation with a height of 3/64 inch excluding the facing, generally spaced about 90 to 98 flutes per foot.

Elastomer
A substance having rubber-like or stretching qualities.

Emboss
Raised design or lettering on the surface of an object accomplished by pressure of dies, rollers, printing press, etc.

EPA
The Environmental Protection Agency (EPA). One function of the EPA is to regulate the labeling, packaging and registration of pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act. The EPA is the sole federal agency with the authority to regulate child-resistant packaging for pesticides. Since March 9, 1979, child-resistant packaging has been required for all residential use pesticides labeled with a human hazard signal word of danger or warning.

EPS
Expandable polystyrene. A generic term for polystyrene and styrene copolymers, supplied as a compound with physical blowing agents and other additives which can be processed into low density foamed articles. A major end-use is cushioned packaging. Low molding pressures and economical tooling make EPS molding an inexpensive method of producing foam shapes.

Equipment, Assembly
Equipment for welding and assembling plastics, textiles, and films.

Equipment, Bagging
Semi- and fully automatic plastic bagging equipment, and bag imprinting equipment. Refurbishing of bagging equipment is also available.

Equipment, Capping
Automatic and semi-automatic equipment for applying caps, lids, fitments, sifters, plug inserts and other specialty container closures on glass and plastic bottles. De-cappers are also available.

Equipment, Decorating
Silicone pad printing process equipment, rotary printing equipment, silk screening equipment and laser technology printing equipment.

Equipment, Dispensing
Equipment which offers a controlled environment for the dispensing of laundry detergents, grease digesting chemicals and odor suppression chemicals. Used in Laundromats, car washes, trash chutes, dumpsters, lift stations, and water treatment plants.

Equipment, Filling
Liquid and aerosol, bottle, and siphon filling equipment, cup filling equipment for powders and granules, auger filling equipment for free flowing products, and pressure and gravity filling equipment.

Equipment, Hand-Held
A wide range of equipment such as stretch film assemblers, lightweight impact wrenches, cappers and de-cappers, and aluminum and plastic tools for removing plastic pail lids, all designed to operate manually.

Equipment, Labeling
Automatic and semi-automatic labeling systems. Varieties include equipment for carton printing, bottle labeling, bag printing, de-labeling, sleeve labeling, and small character ink jet printing.

Equipment, Loading Dock
Drum trucks, dollies, stands, racks, dock levelers, vehicle restraints, portable dock boards, shelters, dock doors, bumpers, lights and curtains, pallet and hand trucks, hydraulic lifts and production lifts.

Equipment, Molding
Various auxiliary types of tooling and machinery to help achieve specific bottle molding capabilities are available.

Equipment, Packaging
Label applicators, dispensers, stenciling systems, and equipment for packaging medical devices.

Equipment, Sealing
Equipment for a wide range of objectives including sealing closures after filling containers, sealing molded plastic components, sealing flexible plastic packaging, etc. Manual, semi-automatic and automatic systems are available.

Equipment, Sterilizing
Sterilization equipment for companies that require in-house processing, sterilizer tests and recording systems.

ESCR
Environmental stress crack resistance. A measure of the susceptibility of a plastic bottle to crack or craze under the influence of certain chemicals, stresses, or other agents.

EsterFoil 50
Manufactured by Selig Sealing Products. EsterFoil 50 is a white, ì polyester coated aluminum foil liner which is widely used within ì the cosmetic industry. It provides extremely low moisture vapor ì transmission rates with high chemical resistance and is available ì on a variety of pulp grades.

Etch
(1) To treat a material with an acid, leaving the parts of the material which remain in relief to form the desired design. (2) To corrode the interior of a tin can sufficiently to be visible as an irregular instead of polished surface.

Eutrophication
Eutrophication is a process whereby water bodies, such as lakes, estuaries or slow moving streams, accumulate nutrients that stimulate excessive algal growth. Nutrients can come from many sources, such as: 1) fertilizers applied to agricultural fields, golf courses and suburban lawns; 2) deposition of nitrogen from the atmosphere; 3) erosion of soil containing nutrients; 4) sewage treatment plant discharges; and 5) the burning of fossil fuels. As the algae grow faster, they shade existing plants until both the algae and some plants die off. As the dead algae and plants are decomposed by microbes, dissolved oxygen is used up, creating an anoxic condition - an environment without oxygen. Such an environment becomes unsuitable for plants and animal life. Algal blooms also lead to oxygen depletion

resulting in fish population decline and the creation of aquatic conditions that can be harmful to human health.

EVA
Ethylene-vinyl acetate. Copolymers from these two monomers retain many of the properties of polyethylene, but have considerably increased flexibility for their density. Elongation and impact resistance are also increased. Used for making film, coatings, and adhesives. The combination of high clarity, puncture resistance, impact strength, and low heat-seal temperature makes EVA desirable for flexible packaging.

EVOH
Ethylene-vinyl alcohol copolymers. Plastics produced by combining the processability of ethylene polymers with the barrier properties obtained from vinyl and alcohol polymers. The result is a material offering excellent processability and superior barrier to gases, odors, fragrances, solvents, etc.

Extender
A substance, generally having some adhesive action, added to a product, such as an adhesive, ink, or paint, to reduce the amount of the primary resin required per unit area.

Extruded Film
Film produced by extrusion of molten resin through a die.

Extrusion
A method of shaping a plastic material by forcing it, with the application of heat and pressure, through an orifice in a continuous fashion.

Extrusion Blow Molding
A method of fabrication in which a hollow plastic tube (parison) is forced into the shape of the mold cavity by internal air pressure. Post finishing of the product is required. A video of the process is located here.

Letter F

F-217
Manufactured by Tri-Seal, a Tekni-Plex Company. A three-ply coextruded material. Foamed low density polyethylene core between two solid layers of low density polyethylene. (.040 thickness) Density 23-27 lbs./cu. ft. Many variants of F-217 are available. Application: General purpose. Used to seal cosmetics, liquors, drugs, foods and other products.

F-217-3
Manufactured by Tri-Seal, a Tekni-Plex Company. Coextrusion of low-density polyethylene / foamed polyethylene / low-density polyethylene. Has greater density than F-217.

Fastener System
Any engineered device used in an assembly process. One example is a fastener for collapsible, reusable or one way shipping and storage containers, i.e., boxes, cases, crates or bins.

FDA
Food & Drug Administration. This agency governs what items may be used in foods, drugs and

cosmetics. It regulates the labeling of foods, drugs, cosmetics and devices under both FPLA (Fair Packaging and Labeling Act, 1966) and FFDCA (Federal Food, Drug & Cosmetic Act).

Feature
In RapidFind, Feature is one of the search criteria. In all product types - Glass, Plastic and Closures - a Feature is one outstanding property of the item. Selecting a Feature in addition to a Style can effectively narrow the results of a search. In the Glass and Plastic product types, Features include Indent (for label), Round Shoulder, Footed, etc. In the Closure product type, a Feature can define a Style of closure. For example, Features such as Flip Top, Trigger Sprayer and Turret all identify Dispensing Style closures. In Continuous Thread closures, a Feature identifies a property, such as smooth, ribbed, tall, etc.

Feltboard
Feltboard is a backing material to which facings are laminated in the manufacture of duplex liners. This backing is similar to pulpboard except that it is made of more highly refined fibers. It has no recognized advantage over pulpboard, other than perhaps in specialized instances where its whiter, more highly refined appearance may be a factor.

Fill Point
The level to which a container must be filled to furnish a designated quantity of the contents.

Filler
An inexpensive, inert substance added to a plastic to make it less costly. Fillers may also improve physical properties, particularly hardness, stiffness and impact strength. Filler particles are usually small.

Film
(1) Unsupported, basically organic non-fibrous, thin, flexible material not usually exceeding 0.0003 inch in thickness. (2) Generally, a thin coating.

Filters
Various types of filters and filtration products are available, including laboratory, semiconductor, chemical processing, and wine and beer industries uses.

Final Packaging Material
Final packaging material refers to the material substrates and ready-to-use auxiliaries such as inks, adhesives and coatings used to produce packaging. The phrase is also used to distinguish substrates from raw source materials and processed auxiliary materials from the individual formulation chemicals that comprise them.

Finish
In general, the plastic forming the opening of a container shaped to accommodate a specific closure. Also, the ultimate surface structure of an article. In RapidFind, Finish is one of the search criteria as described below. In the Glass and Plastic product types, Finish is expressed as 24-410, 20mm Crimp, 38mm Snap, etc. The Finish description reflects the outside diameter of a bottle or jar's neck in mm's, and a thread configuration or some other description of how the closure fits on the container. In the Closure product type, Finish refers to the thread configuration. Common configurations are -410, -2030, etc.

Fitment
A plug that fits within the neck of a bottle to control the flow of products such suntan lotions, coupled with a non-dispensing closure. The primary (non-dispensing) closure is usually removed each time to provide the desired function, while the fitment (plug) remains in place.

Flame Treating
Exposing plastic bottles or film to a a gas flame to promote oxidation and increase the polarity of the surface, which makes them receptive to inks, lacquers and adhesives. The amount of flame treatment is dependent on the condition and position of the flame and the time of exposure.

Flange
(1) Generally, a projecting or flared edge, rib, etc., to hold, strengthen or facilitate the use of an object or part. (2) In steel drums and cans, a right angle flare or nearly right angle formed in the ends of the body-cylinder to enable heads and bottoms to be double seamed to the body. (3) In drum closures, the threaded fitting which receives the closure plug.

Flange Cap Seal
Tamper resistant closure over plugs in drums and pails.

Flanged Bottom
A bottom defect. A rim of glass around the bottom of the ware at the mold parting line.

Flash
Extra plastic attached to a molding along the parting line; it must be removed before the part can be considered finished. Also called a fin or cut-off.

Flash Line
A raised line appearing on the surface of a molding and formed at the junction of mold faces.

Flask
A style of narrow-neck bottle, usually of elliptical cross section, with flattened side walls having a width of four or more times the thickness.

Flexible Packaging
Packaging involving the use of such flexible materials as foils, films, paper, flexible sheeting, etc., to form the container, basically wraps, bags, envelopes and pouches.

Flexographic Printing
Formerly called aniline printing. A method of rotary letterpress printing that employs rubber or plastic plates and rapid drying inks. Extensively used in the printing of packaging materials as well as other printing applications.

Flint
Clear glass used for all types of containers.

FLPE
Fluorinated high density polyethylene.

FLPP
Fluorinated polypropylene.

Fluid Handling Products
Items include bulk containers, drums, rigid or plastic containers, steel, plastic or fiber containers, collapsible containers, dispensers, fuel containers, tanks, water containers and bag-in-box containers.

Fluorination
Single Step Fluorination: Molding of containers using fluorine instead of air. This process creates a chemical reaction by which a barrier layer is created on the interior surfaces of the container. Also called in-line fluorination. Post Treatment Fluorination: This process of treating existing containers involves exposing the containers to a controlled environment which introduces fluorine to the treatment chamber. The exposure to the fluorine effects a barrier on both the internal and external surfaces of the container in the same manner as Single Step Fluorination.

Fluorination Service
A treatment to enhance the barrier properties of a container.

Fluorocarbons
Liquid or gaseous compounds used as a propellent for aerosols or for refrigerants. Also known as solid thermoplastic materials. Typical fluorocarbons are Teflon (polytetranuoroethylene), TFE (Teflon tetrafluoroethylene), FEP (Teflon fluorinated ethylene propylene and KEL-F (polymonochlorotrifluoroethylene). Fluorocarbons are noted for their chemical inertness and high temperature resistance.

Flute
(1) A rib or corrugation on a surface; one of the undulations of a corrugated material. (2) A flat surface in a cylindrical container.

Foil (Laminated)
Foil bonded to other materials such as paper, board, films, etc., by means of an adhesive.

FoilSeal 1-12
Manufactured by Selig Sealing Products. Adheres to PE containers with a welded bond. With a pulp backing, provides a tamper evident seal for pharmaceutical, anti-freeze and windshield solvent applications. Composition: .0005" foil, .0005" PET, and .0015" heat seal layer. Equivalent liners: Unipac SG75 and ISPE, Sancap HS057, Tekniplex HS130, Techseal HS-1, Meyer PE30/12/35, Sonoco IHS705.

FoilSeal 1-13
Manufactured by Selig Sealing Products. With a pulp backing, provides a clean peel seal on PE containers for dairy, water and food applications, and a clean peel seal on PP containers for cosmetics (skin care) applications. Composition: .001" foil, and .002" heat seal layer. Equivalent liners: Unipac ISPE/PP, Sancap HS131, Meyer PE/PP, Sonoco IHS205, and Triseal TR758.

FoilSeal 1-15
Manufactured by Selig Sealing Products. The PET layer provides an added barrier. With a foam backing, provides a clean peel seal on PE containers for soup base, ketchup, skin care product, BBQ sauce, and fruit juice applications. With a pulp backing, provides a clean peel seal on PP containers for cosmetic, soup base, ethnic sauce, and condiment applications. Composition: .001" foil, .0005" PET, and .002" heat seal layer. Equivalent liners: Unipac ISPE/PP, Sancap HS415, Techseal HS-2, Meyer PE/PP, Sonoco IHS205.

FoilSeal 1-16
Manufactured by Selig Sealing Products. With a pulp backing, provides a clean peel seal on PE containers for dairy, water and food applications, and a clean peel seal on PP containers for cosmetics (skin care) applications. Composition: .0005" foil, and .002" heat seal layer. Equivalent liners: Unipac ISPE/PP, Sancap HS131, Meyer PE/PP, Sonoco IHS205, and Triseal TR758.

FoilSeal 1-17
Manufactured by Selig Sealing Products. Adheres to PE containers with a welded bond. Allows easy entry. With a foam backing, provides a tamper evident seal for pharmaceutical, anti-freeze and windshield solvent applications. Composition: .0005" foil, and .0015" heat seal layer. Equivalent liners: Unipac SG100 and ISPE/EO, Sancap HS702, Tekniplex HS123.

FoilSeal 1-18
Manufactured by Selig Sealing Products. The PET layer provides an added barrier. With a foam backing, provides a clean peel seal on PE containers for soup base, ketchup, skin care product, BBQ sauce, and fruit juice applications. Composition: .0005" foil, .0005" PET, and .002" heat seal layer. Equivalent liners: Unipac ISPE/PP, Sancap HS415, Techseal HS-2, Meyer PE/PP, Sonoco IHS205.

FoilSeal 1-19
Manufactured by Selig Sealing Products. Provides an excellent chemical and barrier. With a pulp backing, provides a tamper evident with barrier seal on PE containers for chemical and some solvent applications. Composition: .001" foil, .0005" barrier layer, and .0015" heat seal layer. Equivalent liners: Meyer PE30/12/60, Sonoco IHS220.

FoilSeal 1-21
Manufactured by Selig Sealing Products. Added layer for high barrier. With board backing, provides clean peel with barrier seal on PE containers for soup base, ketchup, skin care products, BBQ sauce, and fruit juice applications. With foam backing, provides clean peel with barrier seal on PP containers for cosmetic, soup base, ethnic sauce, and condiment applications. Composition: .001" foil, .0005" barrier layer, and .002" heat seal layer. Equivalent liners: Unipac ISPEPP, Triseal TR736.

FoilSeal 1-22
Manufactured by Selig Sealing Products. Clean peel seal from PE and PP containers with added layer for high barrier. Composition: .0005" foil, .0005" barrier layer, and .002" heat seal layer. Equivalent liners: Unipac ISPEPP, Triseal TR736.

FoilSeal 3-19
Manufactured by Selig Sealing Products. With a pulp backing, provides a clean peel seal on PET or PVC containers for peanut butter, isotonic drink, edible oil, water and juice applications. Composition: .001" foil, and .0005" heat seal layer. Equivalent liners: Unipac SG90 and ISCT, Sancap HS194, Tekniplex HS165, Techseal HS-3, Sonoco IHS640, Triseal TRPET.

FoilSeal 3-24
Manufactured by Selig Sealing Products. Has a thicker heat seal layer for added barrier performance. Provides a clean peel seal from PET and PVC containers. Composition: .001" foil, and .001" heat seal layer.

FoilSeal 3-25
Manufactured by Selig Sealing Products. With a foam backing, provides a clean peel seal on PET or PVC containers for peanut butter, isotonic drink, edible oil, water and juice applications. Composition: .0005" foil, and .0005" heat seal layer. Equivalent liners: Unipac SG90 and ISCT, Sancap HS194, Tekniplex HS165, Techseal HS-3, Sonoco IHS640, Triseal TRPET.

FoilSeal 3-26
Manufactured by Selig Sealing Products. Has a thicker heat seal layer for added barrier performance. Provides a clean peel seal from PET and PVC containers. Composition: .0005" foil, and .001" heat seal layer.

FoilSeal 3-27
Manufactured by Selig Sealing Products. Has an added layer for high barrier performance. With a foam backing, provides a clean peel seal from PET and PVC containers for ethnic sauce, salad dressing, and condiment applications. Composition: .001" foil, .0005" barrier layer, and .0005" heat seal layer. Equivalent liner: Unipac ISCT.

FoilSeal 3-30
Manufactured by Selig Sealing Products. Aggressive bond to PET (leaving residue on container lip) and CPET and PVC (without leaving residue). Offers clean peel seal on PEN. With a foam backing, provides a clean peel seal from CPET containers for water and isotonic applications. Composition: .0005" aluminum foil, and .0008" heat seal layer. Equivalent liner: Unipac ISPET/PVC

FoilSeal 3-31
Manufactured by Selig Sealing Products. Aggressive bond to PET (leaving residue on container lip) and CPET and PVC (without leaving residue). Offers clean peel seal on PEN. With a foam backing, provides a clean peel seal from CPET containers for water and isotonic applications. Composition: .001" aluminum foil, and .0008" heat seal layer. Equivalent liner: Unipac ISPET/PVC.

FoilSeal 3-32
Manufactured by Selig Sealing Products. Aggressive bond to PET (leaving residue on container lip) and CPET and PVC (without leaving residue) with added layer for high barrier. Offers clean peel seal on PEN. With a foam backing, provides a clean peel seal from CPET containers for pasteurization, hot fill-190f, processed and food applications. With pulp backing, provides tamper evident seal on PET and PVC for salsa and picante sauce applications. Composition: .005" foil, .0005" barrier layer, and .0008" heat seal layer. Equivalent liner: Unipac ISPET/PVC.

FoilSeal 3X6
Manufactured by Selig Sealing Products. Aggressive bond to PET (leaving residue on container lip) and CPET and PVC (without leaving residue) with added layer for high barrier. Offers clean peel seal on PEN. With a foam backing, provides a clean peel seal on CPET containers for pasteurization, hot fill-190f, processed and food applications. Successful applications include pickles, fruits, dairy-based drinks and soup. Composition: .001" foil, .0005" barrier layer, and .0008" heat seal layer.

FoilSeal 3X7
Manufactured by Selig Sealing Products. Welded bond to PET and PVC leaving residue on container lip. Offers clean peel seal on PEN. With a foam backing, provides a tamper evident with barrier seal on CPET

containers for hot-fill food 190f applications. Successful applications include pickles, fruits, dairy-based drinks and soup. Composition: .001" foil, .0005" barrier layer, and .0008" heat seal layer.

FoilSeal 4-17
Manufactured by Selig Sealing Products. Provides a welded bond on P/P containers. Composition: .0005" foil, .0005" PET, and .0015" heat seal layer. Equivalent liners: Unipac ISPP, SANCAP HS295, Techseal HS-4, Meyer PP, and Sonoco IHS305.

FoilSeal 4-18
Manufactured by Selig Sealing Products. Adheres to PP containers with a welded bond. Allows easy entry. Composition: .0005" foil, and .0015" heat seal layer. Equivalent liners: Unipac SG101 and ISPP/EO, Sancap HS128, Meyer PP, Sonoco IHS805.

FoilSeal 4-6
Manufactured by Selig Sealing Products. Adheres to PP containers with a welded bond. Allows easy entry. With a pulp backing, provides a tamper evident seal for cosmetic (skin care) and food applications. Composition: .001" foil, and .0015" heat seal layer. Equivalent liners: Unipac SG101 and ISPP/EO, Sancap HS128, Meyer PP, Sonoco IHS805.

FoilSeal 4X5
Manufactured by Selig Sealing Products. Added layer for high barrier. Clean peel seal to PP containers. Successful applications include pickles, fruits, dairy-based drinks and soup. Composition: .001" foil, .001" barrier layer, and .002" heat seal layer.

FoilSeal 5-10
Manufactured by Selig Sealing Products. Provides welded bond to PS. Venting liner with universal seal. For dry products only. Vent option available. Composition: .001" aluminum foil, .005" paper, and .0015" heat seal layer.

FoilSeal 5-4
Manufactured by Selig Sealing Products. Provides welded bond. Universal seal (treated glass). For dry products only, tamper-indicating universal seal (treated glass). Vent option available. Composition: .001" foil, .002" paper, and .0015" heat seal layer. Equivalent liners: Unipac SG104, Sancap HSO35/30, Tekniplex HS405/435.

FoilSeal 5-5
Manufactured by Selig Sealing Products. Provides welded bond. Universal seal (treated glass). For dry products only, tamper-indicating universal seal (treated glass). Vent option available. Composition: .0005" foil, .002" paper, and .0015" heat seal layer. Equivalent liners: Unipac SG104, Sancap HSO35/30, Tekniplex HS405/435.

FoilSeal 5-6
Manufactured by Selig Sealing Products. Provides welded bond. Universal seal (treated glass). Can use with liquids. Composition: .002" paper, .0005" bonding layer, .001" foil, and .0015" heat seal layer. Equivalent liners: Meyer UNV.

FoilSeal 5-7
Manufactured by Selig Sealing Products. Provides welded bond. With pulp backing, provides tamper

evident seal to P/S containers for pharmaceutical applications. Composition: .001" aluminum foil, and .0015" heat seal layer. Equivalent liners: Unipac SG104, Meyer UNV.

FoilSeal 5-8
Manufactured by Selig Sealing Products. Provides welded bond. Universal seal (treated glass). Can use with liquids. Composition: .002" paper, .0003" foil, and .0015" heat seal layer. Equivalent liners: Unipac SG102, Meyer UNV.

FoilSeal 5-9
Manufactured by Selig Sealing Products. Universal innerseal that will seal to all container materials (including treated glass) with varying degrees of adhesion. Composition: .001" aluminum foil, .0005" bonding layer, and .001" heat seal layer. Equivalent liners: Unipac SG108, Sancap HS592, Tekniplex HS153.

FoilSeal 7-12S
Manufactured by Selig Sealing Products. Provides clean peel seal from treated glass and PE containers. PET layer for added barrier properties. Composition: .001" foil, .0005" PET, and .002" heat seal layer. Equivalent liners: Unipac ISV, Sancap HS150.

FoilSeal 7-19S
Manufactured by Selig Sealing Products. Provides clean peel seal from treated glass and PE containers. PET layer for added barrier properties. Composition: .0005" foil, .0005" PET, and .002" heat seal layer. Equivalent liners: Unipac ISV, Sancap HS150.

FoilSeal 7-6S
Manufactured by Selig Sealing Products. Provides clean peel seal from treated glass and PE containers. Composition: .001" foil, and .00175" heat seal layer. Equivalent liners: Unipac SG105 and ISG, Sancap HS402, Tekniplex 125, Meyer SURLYN, Sonoco IHS190.

FoilSeal 8-1S
Manufactured by Selig Sealing Products. Welded bond. With pulp backing, provides tamper evident seal on barex containers for automotive and chemical applications. Composition: .001" foil. Equivalent liners: Techseal HS-6.

FoilSeal M-1
Manufactured by Selig Sealing Products. Adheres to PE containers with a welded bond. With a pulp backing, provides a tamper evident seal for pharmaceutical, anti-freeze and windshield solvent applications. Composition: .001" foil, .0005" PET, and .0015" heat seal layer. Equivalent liners: Unipac SG75 and ISPE, Sancap HS057, Tekniplex HS130, Techseal HS-1, Meyer PE30/12/35, Sonoco IHS705.

FoilSeal M-4
Manufactured by Selig Sealing Products. Offers welded bond to P/P containers. With a pulp backing, provides a tamper evident with barrier welded bond on P/P containers for pharmaceutical and cosmetic applications. Composition: .001" foil, .0005" PET, and .0015" heat seal layer. Equivalent liners: Unipac ISPP, SANCAP HS295, Techseal HS-4, Meyer PP, and Sonoco IHS305.

Folding Carton
A container made of bending grades of paperboard. Formed by the maker, and to be set up, filled and

closed by the user. Folding cartons are made in a multitude of styles, a few of which are: tuck-end carton, reverse tuck, straight tuck, two-piece and many others. A general class of paperboard container, distinct from set-up boxes and corrugated and solid fibre boxes.

Food Packing Products
Wood barrels and tubs with liners, bags, flexible packaging, such as food seasoning, spice, snack and beverage envelopes, plastic baskets, rigid plastic containers, and plastic and foam products such as insulated containers, dry ice storage chests, and refrigerant packs.

Forced or Compulsory Overtime
Forced or compulsory labor, consistent with ILO conventions, is defined as all work or service which is exacted from any person under the threat of punishment or retaliation, or demanded as a means of repayment of debt for which said person had not offered himself or herself voluntarily.

Friction Fit
Refers to a type of plug can closure. The plug is designed so that frictional resistance to movement exists between the plug and the part of the container designed to hold it.

Frosting
A crystalline finish or pattern on a glass surface.

F-Style Can
Called "F" because it was originally created to package Flit insecticide. It is a rectangular metal can with a pouring spout.

Functional Unit
According to the ISO 14040 series of standards for life cycle assessment, a functional unit provides a way to "normalize" the data that is collected so that the measurement is expressed in comparable terms.

Letter G

Gamma Irradiation

Sterilization by means of exposure to a source of gamma rays, normally Cobalt 60.

Gas Transmission Rate
A measure of the permeability of a packaging film to gases by measuring the movement of a gas through the film under specified conditions.

Gasket
A liner applied between the sealing surface of container lip and closure to provide the ultimate seal.

Gaskets
Cork, cork and rubber, rubber, fiber, paper, plastic, silicone, sponge, and non-asbestos gaskets.

Gate
In a molding process, a restricted section of runner at the edge of an injection mold cavity, serving to permit entrance of the plastic material into the closed cavity and core assembly.

GCMI
Glass Container Manufacturers Institute. Former name of GPI.

Glass Coating, Safety
Stock and custom glass containers with special safety and shatterproof coatings.

Glass Types
Four types of glass are specified by the U.S. Pharmacopoeia on the basis of chemical durability tests. Types I, II, and III are intended for packaging parenteral preparations and Type NP for non-parenteral products. Type I: Containers normally made of borosilicate glass having a highly resistant composition. Type II: Containers made of commercial soda-lime glass which have been treated on the inside surface at a high temperature to obtain a great improvement in chemical resistance. Type III: Untreated glass containers made of commercial soda-lime glass of average or somewhat above average chemical resistance. Type NP: Untreated glass containers made of ordinary soda-lime glass.

Glass, Lead Crystal
Decorative glass items made from a lead crystal formulation are available.

Glassine 54#
The 54# Glassine liner is composed of: 25# Glassine / 4# butyl rubber adhesive / 25# Glassine. It is primarily used in child resistant closures. Glassine is the major Tacseal material currently available from Owens Brockway. It is used exclusively on dry products.

Glassine 57#
The 57# Glassine liner is composed of: 25# Glassine / 7# laminating wax / 25# Glassine. Glassine is the major Tacseal material currently available from Owens Brockway. It is used exclusively on dry products.

Glassware
Stock and custom glassware, including bowls, stemware, candle holders, vases, plates and perfume bottles.

Gloss
Shine or luster of the surface of a material. If a surface clearly and plainly reflects an image of light, it has a high gloss.

Gloves
Latex gloves.

GMP
Good manufacturing practices. Regulations promulgated by the FDA under which device manufacturers must produce, package, and label their devices.

Goal
A goal or objective is an endpoint that a person or organization intends to achieve or bring about.

Gold Lacquer
A protective coating which has a yellow color. May be of lacquer or baked enamel.

Gold Reverse
The gold-lacquered interior of a closure.

GPI
Glass Packaging Institute. A trade association for the glass container and closure industries, with

recommended specifications published for glass containers, glass finishes, and metal and plastic closures.

GPPS
General Purpose Polystyrene (GPPS) is a clear polymer that exhibits high stiffness, good dimensional stability, low specific gravity and excellent electrical properties. It offers several advantages over other polymers because of its clarity and ease of processing, both of which are due to its amorphous nature.

Graduations
Marks on a container to show fluid levels of contents on a scale of full to empty.

Greenhouse Gases
Gases that trap heat in the atmosphere are often called greenhouse gases. Some greenhouse gases such as carbon dioxide occur naturally and are emitted to the atmosphere through natural processes and human activities. The international Panel on Climate Change (IPCC) recognizes four primary greenhouse gases (GHGs). These are water vapor (H2O), carbon dioxides (CO2), nitrous oxide (N2O) and methane (CH4). However, the IPCC and other leading climate change agencies include a number of entirely human-made gases in their GHG inventory which by category, include halocarbons and other chlorine and bromine containing substances, also known as fluorinated gases, which are dealt with under the Montreal Protocol, and sulphur hexafluoride (SF6), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) dealt with under the Kyoto Protocol. Carbon dioxide has a global warming potential of one, while methane and nitrous oxide have warming potentials of 25 and 310 respectively. Fluorinated gases can be intense greenhouse gasses with the multiplier for sulfur hexafluoride (SF6) being 23900 times as potent as carbon dioxide. A complete list of pertinent GHGs can be found on the IPCC website. The principal greenhouse gases that enter the atmosphere because of human activities are:

Carbon Dioxide (CO2): Carbon Dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas and coal), solid waste, trees and wood products, and as a result of other chemical reactions (e.g., manufacturing cement).

Methane (CH4): Methane is emitted during the production and transport of coal, natural gas and oil. Methane emissions also result from waste elimination by livestock, some agricultural processes and by the decay of organic waste in municipal solid waste landfills.

Nitrous Oxide (N2O): Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Fluorinated Gases: Hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances (i.e., CFCs, HCFCs, and halons). These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High Global Warming Potential gases ("High GWP gases").

Letter H

Hanging Tabs
Hanging tabs for merchandise display, piggyback tags for attaching promotional items to other

merchandise and product identification tags. Styles on some of the tabs include slot, Euro-style, round hole, hook, bottleneck and inventory.

Haze
The degree of cloudiness in a plastic material.

HDPE
High density polyethylene. The resin of choice in blow molding because it is stiff, chemical resistant, has good processing behavior and good environmental stress crack resistance (ESCR). This ESCR makes it a good choice for bleach and detergent bottles where resins having densities between 0.950 and 0.960 and above are commonly chosen. Injection blow molding is a proven and valued processing technique when a container benefits from excellent neck finish and lack of pinch-off.

Headspace
Space between the level of the contents of a container and the closure. Headspace is required to allow for expansion of a product due to heat or pressure, and to allow the container to be grasped without spilling the contents.

Healthcare Products
Disposable scalpels and razors, skin closure strips, cotton balls, surgical and prep blades, syringes, pill boxes, medicine spoons, bandages, home health care aids, valves for asthma inhalers, dosage cups, ampule breakers, blood sedimentation tubes, glass dropper units with rubber bulbs, urine collection containers, sterilizable packaging materials, cotton and plain tip applicators, and tongue depressors.

Heat Stability
The resistance of a plastic material to chemical deterioration during processing.

Heat Transfer
Process similar to hot stamping except preprinted images on a carrier web are applied by heat and pressure to the surface to be printed. Multicolor decoration is a one-step process. Method is widely used for decorating plastic bottles but also for glass and folding cartons.

Heat Transfer Label
Labels printed with special inks on a web from which they are transferred to containers by application of heat as they contact the container surface.

Heat-Seal
A method of uniting two or more surfaces by fusion, either of the coatings or of the base materials, under controlled conditions of temperature, pressure and time (dwell).

Heat-Seal Label
A label made of paper or other material coated on one side with a heat-seal coating, usually a thermoplastic resin, and characteristically difficult to remove after application.

Heavy Bottom
A bottom defect. A localized thick area in the bottom which is usually thickest in the center of the bottom.

Heavy Metals
A series of metallic elements within the periodic table of elements of relatively high atomic weights that, upon exposure, tend to collect in specific body organs and at high levels have been shown to be toxic. Historically, most ink pigments were derived from compounds containing heavy metals. Heavy metals include lead, arsenic, cadmium, mercury, selenium, barium, chromium and antimony.

Heel
The lower portion of a glass or plastic container, starting with the bearing surface of the bottom and including a small portion of the lower side-wall.

Heel Radius
The degree of curvature at the extreme bottom end of a bottle extending upward from the bearing surface. Also called base radius.

Heel Tap
A bottom defect. A localized thick area at one side of the bottom.

Helix Angle
The measure of inclination of the thread, from a plane perpendicular to the vertical centerline of the thread finish.

Hermetic Seal
A seal that will exclude air and will be leakproof at normal temperatures and atmospheric pressures.

Hilo
Also hi-lo. Double-wall corrugated board combining both A-flutes and B-flutes.

HIPS
High Impact Polystyrene (HIPS) is used in applications requiring more toughness than that provided by general purpose polystyrene. During the 1990's, new grades of HIPS were developed with the stress crack resistance to replace ABS. It is produced from styrene monomer along with elastomers. The resulting opaque material offers good dimensional stability, low-temperature impact strength and rigidity. HIPS is readily molded to precise tolerances. It can be combined with other plastic parts to make units which are attractive and tough. Disadvantages include poor barrier properties, and poor grease resistance.

Hollow Neck
A neck defect. A neck in which the glass has blown away, leaving it with thin walls.

Homopolymer
A polymer, consisting of (neglecting the ends, branch junctions, and other minor irregularities) a single type of repeating unit. Also see "polymer".

Horizontal Bar Code
A bar code or symbol presented in such a manner that its overall length dimension is parallel to the horizon. The bars are presented in an array which looks like a picket fence.

Hot Check
An edge or side defect. A check characterized by deep V-shaped cracks appearing on the edge or side.

Hot Filling
The product, usually a liquid, is passed through a heat exchanger and then filled at elevated temperatures. The closure is then applied. Any microbiological contamination on the inner surfaces of the container (usually a bottle) is destroyed by the hot liquid without heating the bottle itself, as in the technique of in-bottle pasteurization.

Hot Stamping
This decorating technique utilizes a die (design) that cuts metal foils from a ribbon and by heat, embosses the design onto the surface of the plastic containers. Often used in conjunction with silkscreening on cosmetic containers such as those used for shampoos and conditioners.

Hot-Melt Adhesive
Adhesive, solid at room temperature, which is liquefied by heat, applied molten, and forms a bond by cooling and solidifying. Based on thermoplastic polymers generally modified with resins and/or waxes. Usually used in range of 250 to 400 degrees F.

Housewares, Glass
Varieties include mugs, tumblers, trays, bowls, lamp parts, globes, vases, and salt and pepper shakers.

Housewares, Plastic
Varieties include drinkware, kitchenware, servingware, cleaning and bath accessories, measuring cups, cooking utensils, bowls, cookie cutters, spice shakers, candy jar containers, placemats, and food canisters.

HS 015
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS 015 is a paper-backed aluminum foil coated with a clear heat-sealable blend of high molecular weight ethylene and vinyl acetate copolymers. Color: Aluminum. Suggested uses include tamper indicating innerseal for OTC drug products on P/E, glass, PET, PVC, P/S and P/P containers. Additional uses: dry products, spices, peroxide, glass cleaner, milk and fruit juice.

HS 030
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS 030 is composed of aluminum foil laminated to glassine and the glassine coated with a clear heat-sealable blend of high molecular weight ethylene and vinyl acetate copolymers. Color: White. Suggested uses include tamper indicating innerseal for OTC drug products in P/E, glass, PET, PVC, P/S and P/P containers. Additional uses: dry products, spices, fruit juice, milk, glass cleaner and peroxide.

HS 035
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS 035 is composed of a paper-backed aluminum foil coated with a clear heat-sealable blend of high molecular weight ethylene and vinyl acetate copolymers. Color: Aluminum. Suggested uses include tamper indicating innerseal for OTC drug products on P/E, glass, PET,

PVC, P/S and P/P containers. Additional uses: dry products, spices, fruit juice, milk, glass cleaner and peroxide.

HS 053
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS 053 is composed of a paper backed aluminum foil coated with a clear heat-sealable blend of high molecular weight ethylene and vinyl acetate copolymers on the paper side. Color: Yellowish White. Suggested uses include tamper indicating innerseal for OTC drug products on P/E, glass, PET, PVC, P/S and P/P containers. Additional uses: dry products, spices, fruit juice, milk, glass cleaner and peroxide.

HS 057
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS 057 is composed of an aluminum foil, polyester combination coated with P/E. Color: Foil. Overall thickness: .0038". Suggested uses include tamper indicating innerseal for OTC drug products on P/E containers. Additional uses: dry products, motor oil, anti-freeze, cooking oil, shampoo, fruit juice and vinegar.

HS 057A
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS 057A is composed of an aluminum foil, polyester combination coated with P/E. Color: Foil. Overall thickness: .0030". Suggested uses include tamper indicating innerseal for OTC drug products on P/E containers. Additional uses: dry products, motor oil, anti-freeze, cooking oil, shampoo, fruit juice and vinegar.

HS 194
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS 194 is composed of an aluminum foil, polyester and PVC combination. Color: Aluminum. Suggested uses include tamper indicating innerseal for OTC drug products on PVC and PET containers. Additional uses: dry products, shampoo, mouth wash, fruit juice and cooking oil.

HS 205
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS 205 is composed of a heat sealable aluminum foil and P/P combination. Color: Aluminum. Suggested uses include tamper indicating innerseal for OTC drug products in P/P containers. Additional uses: dry products, cosmetics, spices, motor oil, anti-freeze, shampoo, cooking oil, fruit juice and vinegar.

HS 295
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or

closure function and appearance. HS 295 is composed of a heat sealable aluminum foil, polyester, and P/P combination. Color: Aluminum. Suggested uses include tamper indicating innerseal for OTC drug products on P/P containers. Additional uses: dry products, cosmetics, spices, motor oil, anti-freeze, milk, fruit juice, cooking oil, vinegar and shampoo.

HS 402
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS 402 is composed of a heat sealable aluminum foil and surlyn combination. Color: Aluminum. Overall thickness: .003". Suggested uses include tamper indicating innerseal for OTC drug products on P/P containers. Additional uses: salad dressing, dry products, cooking oil and peanut butter.

HS 402A
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS 402A is composed of a heat sealable aluminum foil and surlyn combination. Color: Aluminum. Overall thickness: .0035". Suggested uses include tamper indicating innerseal for OTC drug products on P/P, treated glass, PET, PVC and P/S containers. ì Additional uses: dry products, salad dressing, cooking oil and peanut butter.

HS 403
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS 043 is composed of a heat sealable aluminum foil and surlyn combination. Color: Aluminum. Overall thickness: .0040". Suggested uses include tamper indicating innerseal for OTC drug products on P/P, treated glass, PET, PVC and P/S containers. Additional uses: dry products, salad dressing, cooking oil and peanut butter.

HS 592
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS 592 is composed of an aluminum foil and polyester combination coated with a clear heat sealable blend of high molecular weight ethylene and vinyl acetate copolymers which can be waxed- or permanent-laminated to pulp or P/S foam. Color: Aluminum. Suggested uses include tamper indicating innerseal for OTC drug products on P/E, glass, PET, PVC, P/S and P/P containers. Additional uses: dry products, spices, fruit juice, milk, glass cleaner and peroxide.

HS 702
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS 702 is composed of a heat sealable aluminum foil and P/E combination. Color: Aluminum. Suggested uses include tamper indicating innerseal for OTC drug products on P/P containers. Addditional uses: dry products, motor oil, anti-freeze, cooking oil, fruit juice, vinegar and shampoo.

HS 805
A SANCAP Liner Technology product. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and application. HS 805 is composed of aluminum foil with a co-extruded heat seal coating. Color: Aluminum. Suggested uses include tamper indicating innerseal for OTC drug products on P/E, glass, PET, PVC, P/S and P/P containers. Additional uses: dry products, spices, glass cleaner, peroxide, fruit juice and milk.

HVD
High viscosity density (HVD) pumps are available.

Letter I

IBC
Intermediate bulk container. A large bag, box or other container capable of transporting, storing, and discharging one-half ton (1,000 lbs) or more of material.

IBC's
Rigid and flexible intermediate bulk shipping containers (IBC's) that come in plastic, steel and composite. Different sizes are available.

IBM
See injection blow molding.

ID
Inside diameter of a container or container part, ordinarily of the container shell or body.

Impact Resistance
Relative susceptibility of plastics to fracture by shock as indicated by the energy expended by a standard pendulum type impact machine. The ability to withstand mechanical abuse in service, as related to dropping and impacts.

Impact Strength
(1) The ability of a material to withstand shock loading. (2) The amount of energy needed to fracture, under shock loading, a specified test specimen in a specified manner.

Imperial Gallon
The British gallon, equal to 277.274 cubic inches, or about 4.8 U.S. quarts.

Indicator
An indicator stands as a quantitative or qualitative proxy for an issue or characteristic an organization wants or needs to measure

Core indicator: A core indicator is quantifiable or qualitative representation of a measurable issue or characteristic considered to be of interest to most stakeholders. In aggregate, core indicators provide a robust evaluation of the big picture.

Correlating Indicator: A correlating indicator is a quantifiable or qualitative representation of a measurable issue or characteristic considered to be of significant importance but may not be of interest

to all stakeholders. Correlating indicators provide additional information relative to but outside the scope of the core and supplemental indicators.

Supplemental Indicator: A supplemental indicator is a quantifiable or qualitative representation of a measurable issue or characteristic which when measured, provides data that augments a core indicator, generally providing a more specific or detailed measure of an aspect of a core indicator.

Induction Sealing
A sealing technique in which excitation by means of high frequency electric impulse causes materials to bond. Usually associated with inner seals whether they are applied separately or as an integral part (metal or plastic) of the closure.

Injection Blow Molding
A two-stage process of plastic bottle manufacturing where a preform or parison is injection molded. The bottle finish is formed at this time. The preform is then transferred to a blow mold where the bottle takes its final shape. A video of the process is located here.

Injection Mold
A mold into which a plastic resin is introduced by pressure from an exterior heated cylinder.

Injection Molding
A molding process whereby a heat softened plastic resin is forced from a heating cylinder into a relatively cool cavity which gives the product a desired shape.

Ink Jet Printing
Non-impact method of printing whereby tiny drops of ink are formed into letter, number or other configuration and sprayed on to the object or surface to be printed. Can be used for high speed printing. A major application is for code marking beverage cans.

In-Mold Labeling
Process by which preprinted labels are placed in the mold before the plastic is injected into the mold. This form of labeling is very economical for large manufacturing runs, as it does not require any additional processes on the production line or post production decorating.

Inner Seal
An extra seal of comprising a sheet that is resistant to water vapor or vapor from some chemical, and adhered to the top end of a container below the regular cover or closure, to give added protection to the contents, such as: hygroscopic materials like soluble coffee, volatile chemicals such as chloroform, or creams and ointments containing volatile ingredients. The added protection includes: barrier to movement of water vapor or volatile chemicals and perfumes, and protection against tampering, contamination and leakage.

Interrupted Thread
Threads on the neck finish of bottles that are not continuous, having gaps at seam areas to avoid scratching internal coatings on closures.

Irradiation, Atomic
As applied to plastics, refers to bombardment with a variety of subatomic particles, generally alpha-,

beta-, or gamma rays. Atomic irradiation has been used to initiate polymerization and copolymerization of plastics and in some cases to bring about changes in the physical properties of a plastic material.

Letter J

Jars, Plastic
Stock and custom plastic jars in P/P, P/S, P/E, PVC, PET, PETG, SAN, HDPE and LDPE. Decorating options are available on most items.

Jeroboam
A champagne bottle holding the same amount contained in four ordinary champagne bottles (102-2/5 oz).

Jig
Tool or fixture that is used for holding a component that is to be worked on during the manufacturing, decorating and assembly processes.

Jug
A bottle, usually of half-gallon or larger capacity, fitted with a handle.

Letter K

KD
Knocked down. Applied to boxes, cartons, cases, etc., which are stored or shipped flat, that is before the package is set up for loading.

KLP/SFW
Extruded 75 gauge saran film laminated directly to Kraft lined ì pulpboard with a wax coating on the saran. There is always a ì full wax coating on this liner.

Knurl
Indented or crimped portion on the skirt at the top of the cap for holding liner in cap, used as a grip for applying cap and also for a better hold or grip for removing. Also provides non-skid surface during threading operation.

Kraft
A chemical wood pulp made by the sulphate process, or paper or paperboard made from such pulp. It is brown in color and is the strongest pulp product made from wood.

Letter L

Label Panel
That portion of the body of a container to which labels are affixed or decoration imprinted.

Labels
Self-sticking, bar code, UPC, IBM, mylar, cloth, color, aluminum, wrap-around, spot, cling, sleeve, pressure sensitive, heat transfer, DOT, in-mold, expanded content, holographic, rotating, inverted vertical hanging, medical, shipping, international wordless, paper, booklet, production, inventory, and shrink labels. Printing and decorating options are available.

Labels, Expanded-Content
Labels that expand for the printing of consumer directions for use. Available plain or printed, in a variety of colors. Hot stamping and embossing are also available.

Laboratory Services
Various services offered include analytical chemistry, toxicology/pharmacology, immunology, biocompatibility, non-destructive micro-analysis, pyrolysis, thermal analysis, thermogravimetric analysis, sterility assurance, environmental, biotechnical and industrial hygiene testing. Capable of analyzing textiles, biologicals, particles, metals, ceramics, minerals, polymers and semiconductors.

Laboratory Supplies
Vials, flasks, funnels, beakers, hot plates, tubes, tube racks, digital and fixed pipets, pipet and filter tips, stoppers, centrifuge ware, clamps, holders, siphons, trays, fume hoods, dispensers, microscope slides, culture dishes, syringes, incubators, water testing supplies, burets, spatulas, specimen cups, dropper assemblies, labels, ampules, and calibration equipment.

Land Dimension
The sealing surface of a glass or plastic bottle.

Land Seal
Also called flat land seal. The Land Seal requires that a flat surface molded into the closure makes contact against the top of the sealing surface (land) of a container. This seal works best when the closure contains a liner material. It is best suited for threaded closures.

Lap
A general defect. A large fold on the outside of the bottle. Also called "wrinkle."

Latent Energy
Latent energy refers to energy stored in packaging material that may be recovered and valorized.

LDPE
Low density polyethylene. LDPE is similar to HDPE in composition. It is less rigid and generally less chemically resistant than HDPE, but more translucent. Used primarily for squeeze applications. LDPE is significantly more expensive than HDPE, but will yield a glossy bottle when produced in colors.

Lehr
A continuous-belt oven for the annealing of glass, and for fusing of ceramic color on to glass.

Lens Caps
Closures with clear inserts intended for cosmetic jars and round or square cosmetic pots.

Letter Check
An edge or side defect. A small check which appears in the lettering.

Lever Lock
A method of holding a lid on a full open head drum by means of a lever-operated tightening device or ring that can be locked in closed position.

LF
Lubricant Finish (LF). Lubricant finish treatment is used to ì reduce excessive removal torque build-up

found with plain vinyl and P/E coated papers. These papers have a tendency to cold flow after the closure is applied, causing removal torque build up, which is is accentuated with time and temperature. The LF coating is effective in minimizing this problem. The LF coating is also used with Saran film, which has a tendency to grasp the glass sealing surface during capping. This results in erratic capping performance and false application values. Closures which appear to be on tight are reduced to approximately zero removal torque with only slight impact on handling. To overcome this tendency and insure good application and removal torque performance, the LF coating of wax treatment is used.

Life Cycle Assessment

LCA is the "compilation and evaluation of the inputs, outputs and the potential environmental benefits and impacts of a product system throughout its life cycle" (ISO 14040:2006). It is a rigorous approach to assessing environmental aspects and potential impacts of industrial or other systems. LCA enables the estimation of the cumulative impacts resulting from all stages in the product life cycle, often including impacts not considered in more traditional analyses (e.g., raw material extraction, material transportation, ultimate product disposal, etc.). The LCA methodology may be applied on individual phases of a life cycle, e.g., a manufacturing process. Partial life cycle assessments are called cradle-to-gate or gate-to-gate. A full life cycle assessment is known as cradle-to-grave assessment.

Cradle-to-gate: Cradle to gate is a partial life cycle assessment process that includes the resource acquisition and production/manufacturing phases until a specified point (the gate), depending on who is doing the assessment. In terms of packaging, cradle-to-gate measurement may, for instance, include the growth, harvest or extraction and processing of raw materials, processing of recycled or reused materials, production of final packaging materials, conversion of final packaging materials into packaging components, assembly of packaging components into units of packaging and filling of packaging components, as well as the transport functions that are required to move materials, components and units of packaging from one supply chain partner to another up until product is put into the packaging.

Gate-to-Gate: Gate-to-Gate is a partial life cycle assessment process of only one phase of the life cycle. In terms of packaging, gate-to-gate measurement may, for instance, assess the physical and functional attributes or conditions related to packaging that occur during the period of time a supply chain partner owns or is responsible for packaging material, packaging components or units of packaging up to the point of transfer to the next partner in the supply chain.

Cradle-to-Grave: Cradle-to-Grave is a full life cycle assessment that includes resource acquisition to final disposition. In terms of packaging, cradle-to-grave measurement would include the growth, harvest or extraction and processing of raw materials, processing of recycled or reused materials, production of final packaging materials, conversion of final packaging materials into packaging components, assembly of packaging components into units of packaging, filling of packaging components, use of packaging and end-of-life management of packaging/packaging materials. It would also include any transport functions that are required to move raw, recycled, reused or final packaging materials, packaging components and units of packaging from one supply chain partner to another. But, it would not include transport of packaging that contains product.

Life Cycle Inventory Data

Life cycle inventory data is the data collected or derived during a life cycle inventory analysis. A life cycle inventory analysis is the process of examining all the inputs and outputs in a product system's life cycle, beginning with what the product is composed of, where those materials came from, where they go and

the inputs and outputs related to those component materials during their lifetime. The purpose of the inventory analysis is to quantify what comes in and what goes out, including the energy and material associated with materials extraction, product manufacture and assembly, distribution, use and disposal and the environmental emissions that result.

Light Bottom
A bottom defect. A localized thin area in the bottom of the container.

Light Resistance
The ability of a plastic item to resist fading when exposed to sunlight or ultraviolet light. Nearly all plastics tend to darken when exposed.

Light Seam
An edge of side defect. A defect characterized by thin spots in the side of the ware.

Liner
In the manufacture of closures, a disc of paper, cork, composition, etc., retained in a closure to provide a sealing surface against the finish of a container.

Liner Board
A type of paperboard used in making corrugated cartons.

Liner Fall Out
Liner falling out of cap; usually due to shrinkage, loss of moisture or under sized punching.

Linerless Closure
A one-component thermoplastic closure incorporating a sealing "fin" which, when applied to a container with the appropriate finish, seals most liquids including those that are volatile.

Liners
Trash can, drum, bin, hamper, pail, and disposable liners.

Liners, Closure
Stock and custom closure liners, including teflon-faced silicone, butyl, extruded and co-extruded, laminated, and vented liners. Sizes range from 8mm to over 120mm. Some of the liner material options include pressure sensitive, sure seal, 3M top tab, pulp/poly, foil, foil seal, and heat induction.

Lip
The extreme outer edge of the top of a container intended to facilitate pouring.

Lithography
Decorating of flat surfaces by means of plates. Lithography is the prime method for decorating cans, but must be done on the sheet steel before the can is formed.

LLDPE
Linear low density polyethylene.

Loading Marks
A general defect. Fine vertical laps on surfaces.

Locking Ring
Metal closing ring around the rim of a full-removable-head container intended to retain the cover and form a seal. The ring is a circular modified "V" or "U" section channel, the ends of which are drawn together by means of a bolt and the periphery thus shortened, to develop the closure.

Long Neck
A neck defect. A neck which has been stretched longer than that specified.

LTL
Less than truck load. An order which will not fill the minimum standard weight required for truck load freight rate, which usually means that the customer must pay an LTL freight rate.

Lug
(1) Extensions around the circumference of a lid which are crimped down to hold the lid securely in place against the body of the container. (2) A small indentation or raised portion on the surface of a plastic bottle, provided as a means of indexing the bottle for operations such as multi-pass decorating or labeling. (3) A metal fastener used for securing the top or bottom heads of a fibre drum, steel drum or metal pail to the side-wall.

Lug Closure
Interrupted thread finishes with the GPI finish number designations in the 2000 series.

Lug Cover
A cover for metal drum or pail, with extensions around the circumference that are bent down to hold the cover securely in place against the container body.

Lug Finish
Also called Lug/Twist. A glass container finish identified by intermittent horizontal tapering protruding ridges of glass that permit the specially shaped edges of the closure to slide between the protruding lugs and fasten securely with a partial turn. These lug finishes have the GPI designations in the 2000 series.

Lug/Twist
Intermittent thread design closure - commonly used for glass food containers.

LW
Light Wax (LW). Light wax treatment is generally used to improve the moisture vapor barrier characteristics of a given liner facing. The type of wax used for this treatment also acts as a lubricant in the same manner that LF coating of wax does.

Letter M

Magnum
A glass bottle, used occasionally for sparkling wines, having a capacity of two-fifths U.S. gallon. Some foreign magnums vary in capacity.

Maintenance Supplies
Wrenches, steel and plastic pails, gloves, dollies, funnels, absorbent materials, garbage/recycling containers, wastebaskets, mopping equipment, safety items, sprayers, washroom accessories, towel cabinets, utility tools, dust pans and dusters, scoops, drum overpacks, dispensers, floor mats and hosing.

Material
In SourceBase, Material is one of the search criteria. It identifies the type of glass, plastic or metal used to make the item. If an item is made from various materials, i.e., fine mist pumps or trigger sprayers, the Material listed is the predominant material.

Material Distribution
A term which describes the variation in thickness of various parts of a plastic bottle, i.e., body, wall, shoulder, heel, base, etc. Material distribution is controlled by parison programming, temperature of the melted plastic, bottle geometry, blow up ratio, etc.

Materials Handling
Any component or system designed for material storage and retrieval in manufacturing and distribution applications. Examples include pallet racks, metal shelving, bins and totes, forklifts, and conveyor and carousel systems.

Matte Finish
A coating surface which displays no gloss when observed at any angle. Also referred to as a flat finish.

MDPE
Medium density polyethylene. Slightly stiffer and has a higher melting index than low density polyethylene. Widely used in film.

Medicine Cups
Plastic cups usually found inverted on top of OTC liquid medicine bottles. Also called dose cups.

Megarad
Unit of radiation measurement.

Metallized Closure
Plastic closures with a surface deposit of aluminum coated with lacquers to render a decorative metallic effect.

Metallizing
The process of coating a plastic item with a thin layer of metal to give a gold, silver or other metal look. It is commonly used on closures used for cosmetic packaging.

Metric
A metric is the method used to express an indicator. A metric is used to gauge the issue or characteristic - represented by an indicator - that an organization wants or needs to assess. Metrics are often computational or quantitative, but can also be a qualitative assessment of an indicator. Metrics - particularly computational metrics - are typically expressed as a numerator and a denominator, i.e., "A per B."

Metric Conversions
Volume metric conversions include: 1 ounce = 29.57 or 8 drams, 8 ounces = 236.60 cc, 16 ounces = 473.20 cc, and 32 ounces = 946.40 cc. Liquid Capacity metric conversions include: 1 fluid ounce = 29.57 ml, 8 fluid ounces = 236.60 ml, 16 fluid ounces = 473.20 ml, 32 fluid ounces = 946.40 ml, 1 liter = 33.81 fluid ounces, 1 U.S. Gallon = 3.78 Liters, and 1 Imperial Gallon = 153.72 fluid ounces.

Migration
Transfer of a component of a material to a contacting material. In packaging, this is often the movement of an undesirable component of a packaging material into the product contained, or it can be loss of an important product component into the packaging material. Specified conditions of temperature, pressure and time should be provided.

Minimum Wall
A term designating the thickness of the wall (body) of a container. Usually specified as the minimum thickness allowable for the body of a container.

MM
Millimeter. Metric unit of length equivalent to approximately 0.04 inch.

Mold
Also mould. (1) To shape plastic parts of finished articles by heat and pressure. (2) The cavity or matrix into which the plastic composition is placed and from which it takes its form. (3) The assembly of all parts that function collectively in the molding process.

Mold Maker, Blow Molded
Design and production of molds for the manufacture of plastic items produced by any of several blow molding processes. Mold repair is also available.

Mold Maker, Injection
Custom injection molds for closures, medical packaging and a wide variety of plastic items made by the injection molding process. Molds can be built to process a wide range of resins from commodity to engineering.

Mold Number
The number assigned to each mold or set of molds for identification purposes, usually placed in that part of the container mold that forms the base of the container.

Mold Release
A chemical substance used to facilitate the freeing of a molded object from the mold in which it was formed. Unless the substance is cleaned from the object molded, it may cause adhesion problems at a later stage in manufacturing.

Mold Seam
A vertical line formed at the point of contact of the mold halves. The prominence of the line depends on the accuracy with which the mating mold halves are matched. Also known as parting line.

Monomer
A relatively simple chemical which can react to form a polymer.

Motivational Marketing Svc.
Merchandise for incentive/fulfillment programs.

Mullen
A test made to determine the bursting strength of a flat specimen of paper, paperboard, film, foil, plywood, corrugated fibreboard, solid fibreboard or other material.

Multi-Cavity Mold
A mold with more than one cavity impressions. Therefore, the mold produces two or more bottles per molding cycle.

Multi-Layer Bottle
A bottle which is co-extruded with two or more layers to contain oxygen-sensitive foods or industrial chemicals.

Letter N

Narrow Mouth
Narrow mouth describes a container having an opening roughly one half the diameter of the container or smaller.

Neck
(1) The part of a container where the bottle cross section decreases to form the finish. (2) A round fitting in a can for the purpose of pouring the contents, covered by a closure.

Neck Bead
Usually a protruding circle on the neck of the bottle.

Neck Insert
Part of the mold assembly which forms the neck and finish. Sometimes called neck rings.

Neck Ring
That part of the mold equipment which forms the outside of the neck finish of a bottle.

Neck Ring Seams
A finish defect. Seams which have a fin of glass around the parting line between the finish and the neck of the bottle.

Nesting Containers
Containers made with sloping sidewalls so they can be nested in each other when empty to conserve space.

Newsboard
A relatively cheap type of board made on a cylinder machine from waste newspaper stock.

Nomimal
The exact (or ideal) intended value for a specified parameter. Tolerances are specified as positive and negative deviations from this value.

Nonpyrogenic
Term applied in the medical device and pharmaceutical fields to products which have been tested and found to be free of a specified concentration of bacterial endotoxins (fever-causing agents). Typically evaluated using the USP in vivo Rabbit Pyrogen test or the in vitro LAL test.

Non-Renewable Resource
A non-renewable resource, according to the U.S. EPA, is a natural resource that cannot be remade,

regrown or regenerated as fast as it is consumed and used up. Examples of non-renewable resources are oil, coal, iron ore, minerals including uranium metals and alloys, and old growth forests.

Novelty Items, Plastic
Items available include PVC canisters in the shape of characters such as a Santa Claus boot, taxi, or train, candy jar containers, brightly colored boxes for school supplies, cosmetics, jewelry, drinking straws and tips, various styles of stirrers and picks for drinks, stadium cups and sports bottles.

NRC
(1) Mandatory embossing on the bottom of steel shipping containers indicating an un-reusable container. (2) Also used to indicate any non-reusable container. (3) A container, often required to be marked NRC, whose re-use is restricted by one or more regulatory agency.

Nylon
The generic name for polyamides. A versatile family of thermoplastic resins that vary from relatively flexible products to tough, strong, and stiff materials. A key characteristic is resistance to oils and greases. Also outstanding resistance to fatigue and repeated impact. Water vapor transmission rate is high and gas permeability is moderate. Nylon films are widely used for meat and cheese packaging, boil-in-bags and pouches.

Letter O

Oblong
A particular shape. A rectangular figure having greater length than width, may have angle or rounded corners and parallel or nearly parallel sides.

OD
Outside dimension. The outside dimensions of a container, package or part. In metal drums, it is the diameter over the rolling hoops.

Off-Gage Finish
A finish defect. A finish which is usually oval-shaped and which may be pinched or flattened in one or more places. Also call "out-of-round".

Offset Finish
A finish defect. A finish which is formed with the two halves of the mold shifted out of alignment, either vertically or horizontally.

Offset Printing
This method of printing utilizes printing plates rather than silk screens to transfer the ink to the containers. Offset printing is more exact than silk screening, and is practical for multiple color labeling. Offset printing is utilized primarily on round containers. Because plates are engraved for each color rather than making screens, offset is more expensive than silk screening. The process involves transferring ink from a printing plate to a rubber blanket and subsequently to the sheet (surface to be decorated).

Opaque
Descriptive of material or substance which will not transmit light.

OPET
Oriented PET.

Orange Peel
An uneven surface somewhat resembling an orange peel.

Orifice
The opening in a container through which product is dispensed.

Orifice Reducer
Plug or fitment with a controlled-diameter opening. When inserted in the I.D. of a bottle neck finish, it reduces the flow of product being dispensed.

Out of Round
A finish defect. A finish which is usually oval-shaped and which may be pinched or flattened in one or more places. Also call "off-gage".

Out-of-Round
A plastic container manufacturing variance in which a round container, when formed, does not remain round.

Out-of-Shape Ware
A general defect. Ware which is tilted to one side or which is bulged, sunken-in, or mis-shapen.

Oval
A particular shape. A container which has an elliptical cross section perpendicular to the major axis.

Overcap
A secondary closure that fits over the primary closure or seal mechanism. It protects the primary closure from accidental dispensing. Overcaps are also used to enhance the design of a package.

Overflow Capacity
The capacity of a container to the top of the finish or to the point of overflow.

Overpack
An outer container usually made of steel, wood or fibre, designed to enclose and protect one or more less durable inner containers.

Overpress
A finish defect. A finish which has excessive glass projecting upward from the inside edge of the finish. See also "wire edge" defect.

Oxidation
A chemical reaction involving combination with oxygen to form new components.

Letter P

P/.0015 AF
Pulp and Aluminum Foil: .0015 aluminum foil laminated to paper ì and then laminated to pulpboard.

P/E
Abbreviation for Polyethylene.

P/MF-514
Pulp and Polyester Aluminum Foil: Polyester film applied to .001 ì HDPE coated on 0.00035 aluminum foil, white sulfite paper backed ì and laminated to pulpboard.

P/MY
Pulp and Mylar: .001 Mylar (polyester) film applied to a white ì paper, laminated to pulpboard.

P/O
Pulp/Oil Paper. Duplex liner composed of a pulpboard backing ì laminated with a kraft paper coated with oleoresinous varnish ì facing. Oil paper is used most often in the food industry. It ì is suggested in preference to most other liners where the product ì is filled hot (above 150 degrees F). Oil paper is always ì suggested with pulpboard backing and with or without a wax ì coating depending upon the application.

P/P
Abbreviation for polypropylene. See polypropylene.

P/PE
Pulp/Polyethylene Coated Paper. Pulpboard backing with a .0015" ì P/E coated paper facing. Application: Provides an excellent moisture barrier.

P/RVALF
Pulp and Vinyliner Lubricant Finish: Vinyl Coating applied to ì low-density polyethylene coated white paper laminated to ì pulpboard with LF (lubricant finish wax treatment) over vinyl.

P/RVT
A thermosetting vinyl chloride-acetate copolymer coating applied ì to a high density polyethylene treated white sulfite or bleached ì Kraft paper. Provides a reasonably good moisture, alcohol and ì gas barrier but is softened by essential oils and ketones. ì Usually the facing is suggested in combination with pulp backing ì and lubricant finish. The lubricant finish facilitates closure ì removal after extended periods of product storage.

P/RVTLF
Pulp/Polyvinyl Lubricant Film. Pulpboard backing with vinyl ì coating applied to HDPE-coated white paper, with lubricant finish ì over the vinyl.

P/S
Abbreviation for polystyrene. See polystyrene.

P/S Foam
Manufactured by SANCAP Liner Technology, Inc. Polystyrene Foam is a backing material to which facings are ì laminated in the manufacture of duplex liners. It is a P/S foam ì blown into white foam and extruded to the thickness desired.

P/SA-66
Pulp and Polyester/Aluminum Foil: Polyester film applied to ì polyethylene coated aluminum foil, bonded to Kraft paper and ì laminated to pulpboard.

P/SAF
Pulp/Saran Coated Aluminum Film. Pulpboard backing with white ì pigmented Saran coating applied to .00035" aluminum foil with ì white paper backing.

P/SCK
Pulp/Saran Coated Kraft Paper. Pulpboard backing with a 20# emulsion coating of polyvinylidene chloride (PVDC or Saran) on polycoated 35# Kraft paper facing. It can also be supplied on bleached Kraft paper, resulting in a white material rather than yellow/brown. This liner combinations exhibits better moisture protection and oxygen protection than oil paper.

P/SF
Pulpboard/Saran Film. Pulpboard backing with a 75-gauge Saran film laminated to white paper facing. This liner allows less transmission of most vapors than does vinyl. It is suggested in preference to vinyl in specialized instances where greater resistance to ketones or essential oils is needed. Use of LF wax is strongly suggested to allow smoother, more consistent cap application, particularly with plastic closures.

P/SFLF
Pulpboard/Saran Film/Lubricant Finish: Same as P/SF with the addition of a lubricant finish wax treatment.

P/TF
Pulp and Tin Foil: .0015 in foil adhered to paper; the paper then laminated to pulpboard.

P/V
Pulp/Vinyl: Vinyl laminated to .035 pulp board. Application: Acid and alkali resistant. Commonly used with shampoos, polishes or pharmaceutical products.

P/VAF
Pulp/Vinyl Coated Aluminum Foil. Pulpboard backing with a white ì pigmented vinyl coating on .00035" aluminum foil facing.

P/W-77
Pulp and Polyester/Saran: White paper backed, polyester film, reverse side saran coated, laminated to pulpboard.

P/WPW
Pulp/White Paper Waxed: This liner consist of a waxed paper laminated to pulpboard using an adhesive consisting of a wax and synthetic resin blend. The waxed papers is the specific product of one manufacturer. This liner is specifically applicable to the packaging of dry hydroscopic products. It provides an excellent and relatively inexpensive barrier against entry of atmospheric moisture. There is a wax costing approximately 0.002" thick on the white paper.

Package Development
Development services include package concept, design, drawings, models and prototypes, decorating options, estimated costs, and coordination of physical and time factors.

Package Testing Service
Evaluation of basic packaging materials such as corrugated, paper and paperboard, foams, plastics, and films. Tests include shock transmission, vibration analysis, tear, creep, burst test, altitude testing, etc.

Packaging Component
A packaging component is any stand alone element of a primary or secondary package such as a bottle cap or a protective sleeve, or any stand alone element of transport packaging such as a pallet or strapping, and includes labels, adhesives, inks and/or coatings used on the component.

Packaging for Wipes
Any flexible or rigid packaging system designed to hold wipes pre-moistened with personal care or industrial chemical product formulations.

Packaging, Cloth
Plain and printed specialty cloth bags for packaging and shipping.

Packaging, Hazardous Matl
United Nations certified containers for the domestic and international transportation of hazardous materials by air, ground and water.

Packaging, Unit Dose
Stock and custom packaging for unit dose applications of liquid, viscous, pill and granular pharmaceutical products, and small packs and boxes for individual samples of cosmetic products.

Packer
A line of bottles used primarily in the pharmaceutical industry. The bottles have large finishes with respect to bottle size, making bottles easy to pack.

Packing
Packing services are available. Strict anti-contamination procedures are followed in a clean room environment if required.

Packing Supplies
General purpose and specialty tapes and adhesives, case sealing equipment, shrink film equipment, bubble wrap, foam, anti-static foam, stretch wrap/pallet wrap, mailing envelopes, boxes/cartons, corrugated partitions and pads, cloth and poly bags, strapping, labels and labeling equipment, thermoformed packaging, netting, pouches, dust covers, liners, stenciling machines, absorbents, humidity indicators and desiccants.

Pad Printing
Direct transfer of ink by means of a pad. The operation is similar to that of a rubber stamp. It is used on small areas and also to decorate points on odd shaped containers that would otherwise be impossible by other means, i.e., eyes and nose coloring on the "honey bear" bottles.

Pail Lids
Plastic and steel pail lids in a variety of shapes, sizes and colors, and with a variety of closures and spouts. Labeling is available.

Pails
Plastic and steel. Various sizes and shapes are available, as well as different decorating options.

Pallets
Wood pallets.

PAM
Pulp/Aluminum/Mylar.

Panel Check
An edge or side defect. A check characterized by deep V-shaped cracks appearing on the edge or side.

Paneling
Side wall collapse of a container occurring during aging or storage, caused by the development of a reduced pressure inside the container.

Parison
Also called a gob. A hollow plastic tube from which a container is blown in extrusion blow molding. In injection blow molding, it is the plastic shape formed by the core rod and parison mold that is transferred into the blow cavity for forming the final shape.

Particulate Matter
Unwanted foreign material which may become attached to or enveloped with a "clean" product. May be dust, debris, hair, or other particles. Generally 0.5 um or larger. May be airborne or "gross".

Parting Agent
A lubricant, often wax, used to coat a mold cavity to prevent the molded piece from sticking to it and facilitate its removal from the mold. Also called release agent.

Partitions
Custom corrugated, B, C and E flute corrugated, chipboard, plain or pre-printed, solid bleached sulfate and poly-coated partitions. Die cutting, slotting, printing and decoration are available.

Patent-Lip Vial
A tooled-neck vial with a square, rather heavy lip. See serum vial.

PBT
Also Polybutylene Terephthalate. In the polyester class of plastic resins. Good chemical resistance and clear color. Resistant to water and weak acids and bases at room temperature. Can be sterilized by EtO and autoclaving at temperatures up to 180 degrees Celcius.

PC
See polycarbonate.

Performance Testing
The evaluation of a distribution package to determine its suitability to carry a packaged product through its distribution channel, without damage to the product, by simulating conditions within the transportation environment.

Permeability
(1) The passage/diffusion of a gas, vapor, liquid, or solid through a barrier without physically or chemically affecting it. (2) The rate of such passage.

PET
Polyethylene terephthalate. Known as thermoplastic polyester. Has the unusual ability to exist in either an amorphous or highly crystalline state. The crystalline state is necessary for extruding the material, and the amorphous state permits it to be oriented. Widely used in beverage bottles and in food trays designed for microwave and conventional ovens.

PETG
Polyethylene terephthalate G copolymer. Similar to engineering resins due to its strength and durability. However, its glass-like clarity, toughness and excellent gas-barrier properties make it an outstanding choice for storing biologicals. Tests have shown PETG to be biologically equivalent to, or better than, Type 1 borosilicate glass bottles for cell culture applications. In tests using a wide variety of cell lines, PETG was determined to be non-cytotoxic, and media stored in PETG bottles demonstrated proliferative and morphological characteristics comparable to control media. In fact, PETG bottles allowed growth of good monolayers directly on the surface of the bottle. PETG can be sterilized with radiation or compatible chemicals but cannot be autoclaved. Chemical resistance is fair.

Phenolic
Generic name for phenol-formaldehyde thermosetting plastic.

Photo Developing Supplies
Supplies such as gum arabic, black opaque, and a cylinder degreaser are available.

Pilferproof Seal
A seal that cannot be opened without partially destroying the cap or otherwise showing evidence of tampering.

Pinched Neck
A neck defect. A neck which has been pushed or pinched in.

Pinch-Off
In plastic bottle manufacturing, the bottom of the parison that is pinched off when the mold closes.

Pinhole
A very small hole in a plastic container, film, etc.

Pipets, Transfer
Variations include digital, fixed, general purpose, graduated, fine tip, special purpose, narrow stem and extra long.

Pitch
On a closure thread, the distance from one point to a similar point on the next adjacent thread.

Plastic Recycling Code
The recycling code on the bottom of each container consists of a triangle formed by three arrows, with a number in the center and distinguishing letters under the triangle. The number codes are: 1) PETE =

polyethylene terephthalate, 2) HDPE = high density polyethylene, 3) V = vinyl, 4) LDPE = low density polyethylene, 5) PP = polypropylene, 6) PS = polystyrene, and 7) Other.

Plasticizer
Chemical agent added to plastic compositions to make them softer and more flexible.

Plastics, Blow Molded
Stock and custom blow molded plastics. Various types of resins used include HDPE, LDPE, P/P, PVC, PET, K-resin, thermoplastic rubber, elastomer, Lexan, and Barex.

Plastics, Dip Molded
Dip molding is used to produce custom molded plastic parts, including grips, sleeves and bellows. The process offers low tooling costs, short tooling lead times, various surface textures and no exterior surface parting lines.

Plastics, Injection Molded
Stock and custom injection molded plastics. Various types of resins used include engineered resins, commodity resins, HDPE, polycarbonates, P/P, K-resin, thermoplastic rubber, and elastomer.

Plastisol
A suspension of a finely divided resin in a plasticizer.

Plug
(1) A type of closure which is designed to be inserted into the opening of a container. May be held by friction or by screw threads. (2) A threaded closure part for metal drums. Usually marketed with a receiving flange which is fastened to the drum body or head by welding or other method. (3) A bung. (4) The removable top furnished with certain types of cans.

Plug Seal
A narrow non-flexible protrusion molded into a closure which fits into the bottle neck during normal bottle sealing operations. To be effective, specific inside dimensional tolerances are required for both the closure plug and the bottle neck finish. Plug seals are most commonly seen on snap-on style closures.

Plugs
Stock and custom plugs available, including mailing tube plugs, even-tint plugs, side pull plugs, fitting plugs and vented plugs.

PMS
Pantone Matching System. A series of standard colors commonly used by package designers and manufacturers. These are published by Pantone, Inc. Communication of specified colors can be made with a code number on a tear-away chip taken from the book.

Pock Marks
Irregular indentations on the surface of a blown container caused by insufficient contact of the blown parison with the mold surface. They are due to low blow pressure, air gas entrapment, or moisture condensation on the mold surface.

Polyallomer (PA)
Polyallomer is an essentially linear copolymer with repeated sequences of ethylene and propylene. It combines some of the advantages of both polymers. Polyallomer is autoclavable, and offers much of the high temperature performance of polypropylene. It also provides some of the low temperature strength and flexibility of polyethylene.

Polycarbonate
Polycarbonate is window-clear, amazingly strong, and rigid. It is autoclavable , nontoxic and the toughest of all thermoplastics. PC is a special type of polyester in which dihydric phenols are joined through carbonate linkages. These linkages are subject to chemical reaction with bases and concentrated acids, cydrolytic attack at elevated temperatures (e.g. during autoclaving), and make PC soluble in various organic solvents. For many applications, the transparency and unusual strength of PC offset these limitations.

Polyethylene
A thermoplastic material composed of polymers of ethylene. It is normally a translucent, tough, waxy solid which is unaffected by water and by a large range of chemicals. There are three general classifications: low density, medium density and high density.

Poly-Line
Poly-Line is a backing material to which facings are laminated in the manufacture of duplex liners. It is a construction of white P/E laminated to P/S foam on one or both sides. Poly-Line is an alternative to P/E foam.

Polymer
A high molecular weight organic compound, natural or synthetic, whose structure can be represented by a repeated small unit, the polymer; i.e., polyethylene, rubber, cellulose. Synthetic polymers are formed by addition or condensation polymerization of monomers. If two or more monomers are involved, a copolymer is obtained. Some polymers are elastomers, some plastics.

Polyolefins
Polyolefins are high molecular weight hydrocarbons. They include low-density and high-density polyethylene, and polypropylene. All are break resistant, nontoxic, and non-contaminating. These are the only plastics lighter than water. They easily withstand exposure to nearly all chemicals at room temperature for up to 24 hours. Strong oxidizing agents eventually cause embrittlement. All polyolefins can be damaged by long exposure to ultraviolet light.

Polypropylene
Polypropylene is similar to polyethylene, but each unit of the chain has a methyl group attached. It is tranlucent, autoclavable, and has no known solvent at room temperature. It is slightly more susceptible than polyethylene to strong oxidizing agents. It offers the best stress-crack resistance of the polyolefins. Products made of polypropylene are brittle at ambient temperature and may crack or break if dropped from benchtop height. Used in film, in sheet and for molded rigid containers.

Polypropylene Alloy
Appreviation PPAL. Physical blend of polypropylene and high density polyethylene resulting in characteristics common to both resins, with additional barrier to migration of essential oils.

Polysan
Manufactured by Selig Sealing Products. POLYSAN is a broadly used material which combines the exceptional chemical resistance of P/E with the low transmission rate of PVDC. It is available in white and tan versions and is market proven on a variety of salad dressings and mayonnaise brands.

Polyscrim
A SANCAP Liner Technology product. Low density film on white paper. The Polyscrim Venting Liner is a low density extrusion coated film on one side of a white reinforced Kraft paper. Color: White. Suggested product uses include pool aids, bleaches, hydrogen peroxide 10% and starch blends.

Polystyrene
A thermoplastic material derived from the polymerization of styrene (vinyl benzene); non-toxic, tasteless, odorless, good general dielectric properties; excellent water and weather resistance and resistant to most foods, drinks, etc., with the exception of essential oils, gasoline, turpentine, which will harm the material. Poor impact strength.

Polysulphone
A polymer containing a specific sulfone linkage. These thermoplastic materials exhibit exceptionally high temperature and low creep properties.

Polyvinyl Acetate
A thermoplastic material prepared by the polymerization of vinyl acetate alone. A colorless solid with good resistance to water and concentrated acids and alkalies.

Polyvinyl Chloride
Abbreviation PVC. See additional info under PVC. Rigid, natural straw color, transparent, good barrier properties with excellent resistance to oxygen permeation, excellent resistance to oils and fair impact resistance.

Post-Fill
To fill containers after labeling instead of labeling them after filling and closing, which is called pre-fill.

Pouches
Various films are available for stock and custom pouches to create a flexible package for liquids, including chemicals, food products and beverages.

Pourout Finish
A glass container finish with an undercut immediately below the top, so designed to facilitate pouring without dripping. It is used primarily by prescription and other drug and chemical companies.

Powder Shakers
Complete package, including container, powder shaker fitment and closure, available in a variety of sizes and shapes.

Powder Sifters
Complete package, including container, powder sifter fitment and closure, available in a variety of sizes and shapes.

PPAL
Polypropylene alloy. Physical blend of polypropylene and high density polyethylene resulting in a material with characteristics common to both resins, with an additional barrier to the migration of essential oils.

Pre-Fill
To fill containers before applying labels to them.

Preform
An injection-molded parison which is blow molded by a second step to form a plastic bottle.

Pre-Forms, Stock Bottle
Stock PET pre-forms to manufacture bottles ranging in weight from 24 grams to 78 grams. Various neck finishes are available.

Pressure Check
An edge or side defect. A check characterized by thin, vertical cracks appearing at the seams.

Pressure Sens. Label
A die cut label coated with a pressure-sensitive pre-applied tacky adhesive and requiring pressure only to adhere it to a package or product.

Printing
Custom printing, including brochures and catalogs, typesetting, photography, letterhead printing, computer graphic design, custom-imprinted advertising, ceramic printing for glass containers, paperboard imprinting, pad printing, offset printing on metal plates, and printing on carbonless forms.

Prototype Mold
A simplified mold construction often made from a light metal casting alloy or from an epoxy resin to provide actual molding for evaluation and testing prior to production mold consideration.

PS-113
Pressure sensitive adhesive coated on polystyrene foam.

PS-22
Pressure sensitive, coated on polystyrene foam.

PT 204
Manufactured by SANCAP Liner Technology, Inc. PT 204 is composed of a heat sealable aluminum foil and surlyn combination laminated to polyolefin foam and film. It is a clean peel product. Suggested uses include tamper indicating innerseal for OTC drug products in P/E, glass, PET, PVC and P/S containers. Additional uses: salad dressing, cooking oil, peanut butter and dry products.

PT 405
Manufactured by SANCAP Liner Technology, Inc. SANCAP Heat Seal is a proprietary heat seal coating with a relatively low melting point. It works in many applications where high heat would affect the product or closure function and appearance. HS PT405 is composed of an aluminum foil coated with heat sealable polyester. It is a clean peel product. Suggested uses include tamper indicating innerseal for

OTC drug products on polyester and PVC containers. Additional uses: peanut butter, vegetable oil, mouthwash and automotive products.

PT 508
Manufactured by SANCAP Liner Technology, Inc. PT 508 is composed of aluminum foil with an overcoat on one side and co-extruded heat seal coating laminated to poly foam and film. It is a clean peel product. Suggested uses include tamper indicating innerseal for OTC drug products on P/E, glass, PET, PVC and P/S containers. Additional uses: dry products, spices, milk, fruit juice, glass cleaner and peroxide.

Pull/Push
Injected molded two piece dispensing closure. Closure is opened by pulling up and closed by pushing down the spout. Overcaps are optional.

Pulpboard
Also P. Pulpboard is a common backing material to which facings are laminated in manufacture of duplex liners. It is mostly ground wood or mechanical pulp (usually about 80 percent ground wood to 20 percent sulphite pulp). It can be made up of virgin and reclaimed wood fibers. Standard thickness is .035". Solid wood pulpboard is clean, sanitary, free of objectionable odors and flavors, and is satisfactory for use in direct contact with food.

Pumps, Dispensing
Plastic, glass and metal dispensers, double dispensers, airless dispensers, bottletop dispensers for dispensing aggressive reagents, sensitive reagents or sterile fluids, syringe dispensers, tablet dispensers, lotion and soap dispensers, metered dose dispensers, and dispensing pumps for pails and drums.

Pumps, Spray Mist
Glass, plastic, metal and enamel spray mist pumps, purse sprayers and table atomizers. Decorating options are available.

Purging
In plastic bottle manufacturing, the forcing out of one color or one resin type by another from an extruder or cylinder prior to molding the new color or resin.

Push Up
The recessed area on the bottom of a container designed to allow a stable bearing surface on the outside edge and prevent rocking.

PVC
Polyvinyl chloride. A thermoplastic material composed of polymers of vinyl chloride, a colorless solid with outstanding resistance to water, alcohols, and concentrated acids and alkalines. Compounded with plasticizers, it yields a flexible material superior to rubber in aging properties.

PVDC
A thermoplastic polymer of vinylidene chloride (1.1-dechloroethylene), it is a white powder with softening temperature at 185 to 200 degrees Celcius. Polyvinylidene chloride is also known as "Saran".

PW
Liner consisting of plain pulpboard with a .001" to .002" thick coating of wax on one side. Its sole point

of merit is low cost. It is an adequate liner for packaging non-hygroscopic dry products, but should not be used where other than very nominal protection from atmospheric moisture is needed. Not recommended for liquid products.

PY
Solid Extruded Polyethylene.

Letter R

Radiation Sterilizing
The industrial process that kills microoganisms by exposure to high levels of ionizing energy. Most commonly used are gamma rays from cobalt 60. Electron-beam x-ray energy is also used.

Ramp
A small depressed cavity (detent) in the base of the bottle to act as a guide in positioning the bottle in the decorating machine for application of decoration.

Reaming
A method used to trim and size the inside of a plastic bottle neck finish. A special rotating cutting tool trims the sealing surface smooth and simultaneously reams (bores) the bottom opening to desired size.

Recessed Panel
A container design in which the flat area for labeling is indented or recessed.

Recyclable
Packaging materials that may be processed for reuse by a series of changes or treatments, but not necessarily for their original use.

Recycling Service
Companies offering to recycle plastic or paper products, in order to reduce waste materials going into landfills.

Regrind
In plastic bottle manufacturing, ground material from flash and trimmings which is usually blended with virgin material and remolded.

Removal Torque
The turning or twisting force required to remove a lug cap, screw cap, or twistoff crown. Usually expressed in terms of "inch pounds" and measured by means of a reliable torque meter.

Renewable Energy
Renewable energy resources are naturally replenished in a relatively short period of time. Based on U.S. DOE data, renewable energy resources include biomass, hydropower, geothermal energy, wind energy and solar energy.

Renewable Resource
A renewable resource, according to the U.S. EPA, is a natural resource that can be remade, regrown, or regenerated in a relatively short period of time. Examples of renewable resources are plants and trees.

Reshipper
Shipping container in which empty unit containers are received and intended to be used as shipping containers for the product packaged in the unit containers.

Resin
Any of a class of solid or semi-solid organic products of natural or synthetic origin, generally non-crystalline and of high molecular weight with no definite melting point. Most resins are polymers.

Resin Additives
Fillers, stabilizers, color pigments, etc., that are mixed in small quantities with resins to manufacture plastic items.

Resins
Various physically similar synthetic chemical compounds which are used to manufacture plastic items. Common resins include high density polyethylene (HDPE), polypropylene (P/P), and polyethylene terephthalate (PET).

Reverse Taper Closure
A closure silhouette characterized by the top of the closure being larger in diameter than the open end.

RNase
RNase, an enzyme that breaks down RNA, is a contaminant that interferes with nucleotide research. Plastic containers may be manufactured RNase free, but this a difficult to certify. No analytical tools exist to test for low RNase levels.

Rocker
A container with a bulged or deformed bottom, causing the container to rock when in an upright position.

Rocker Bottom
A bottom defect. A bottom which has sagged so that the container is unstable when placed on a flat surface.

Rods
Glass and polyethylene rods are used particularly in the drug and cosmetic industries. One of the most common is a balled-end rod for touch applying medicines.

Roll-On Balls, Plastic
Hollow and solid roll-on balls for deodorant containers in various sizes. Materials used include HDPE, LDPE, P/P, P/S, PTFE, acetal and nylon.

ROPP
Roll-on pilferproof aluminum closure.

Rough Finish
A finish defect. A finish which has irregular, minute imperfections causing a rough surface.

RSC
Regular slotted container. A rectangular three dimensional shipping container, made of either solid

fibreboard or of corrugated fibreboard. Outer flaps meet. Inner flaps do not meet unless length and width happen to be the same.

Rust Inhibitor
Also RI. A chemical agent, incorporated in a compound applied to a metal surface to prevent or reduce rust or corrosion.

Letter S

SA-22
A Unipac (formerly 3M Cap-Seal) product. A facing consisting of a treated polyester film bonded to the paper side of paperbacked aluminum foil.

SA-66
Polyester film laminated to aluminum foil bonded to .035 pulp board. Application: Good barrier for shampoos, hand creams, mouthwashes or pharmaceutical products.

Safe-Gard 100
A Unipac (formerly 3M Cap-Seal) product. SG-100 has a two-piece welded construction with a tamper indicating feature. An innerseal which provides a fused, tamper indicating foil seal over the mouth of P/E containers. Safe-Gard 100 is preferred by the pharmaceutical industry for its "easy entry" feature. The SG-100 foil membrane is easily ruptured, a critical consideration for geriatric care. SG-100 is white lined pulpboard wax-bonded to an innerseal consisting of .001" aluminum foil with a .0015" heat sealable film. Typical packaging applications include innerseals for dry drink mixes, vitamins, over-the-counter drugs, etc. Equivalent liners: Selig FoilSeal 1-17, Sancap HS702, Tekniplex HS123.

Safe-Gard 101
A Unipac (formerly 3M Cap-Seal) product. SG-101 has a two-piece welded construction with a tamper indicating feature. It is the same as SG-100, but SG-101 is used on P/P containers. Commonly supplied as white lined pulpboard wax-bonded to an innerseal consisting of .001" aluminum foil with a .0015" heat sealable film. Typical packaging applications include innerseals for dry drink mixes, over-the-counter drugs, cosmetics, etc.

Safe-Gard 102
A Unipac (formerly 3M Cap-Seal) product. SG-102 has a two-piece welded construction with a tamper indicating feature. It is the same as SG-100, but SG-102 is used on P/S containers. It is designed to allow an easy push-through opening feature. SG-102 is composed of white lined pulpboard wax-bonded to .001" aluminum foil with a .002" heat sealable layer. Typical packaging applications include innerseals for dry products such as over-the-counter drugs.

Safe-Gard 105
A Unipac (formerly 3M Cap-Seal) product. A two piece peelable liner with an easy open feature. SG-105 provides a tamper indicating seal over the mouth of P/E and glass containers. It combines excellent barrier properties and an easily ruptured foil membrane. SG-105 is commonly supplied wax-bonded to .035" white lined pulpboard with a facing consisting of a .0015" polyolefin inomer coated on .0015" aluminum foil. SG-105 is ideal for OTC drugs, semi-solid spreads, peanut butter, drink mixes and salad dressings.

Safe-Gard 108
A Unipac (formerly 3M Cap-Seal) product. A one piece peelable liner with a tamper indicating feature. SG-108 provides a seal over the mouth of P/E, PVC, PET, P/P, P/S and ABS containers. It is a one piece innerseal with "clean peel" characteristics, making it ideal for use in dispenser, closure and pourable liquid applications. It features a broad sealing range, superior handling properties and excellent barrier characteristics for food applications requiring extended shelf life. Typical packaging applications include innerseals used in conjunction with dispensing closures on plastic containers of ketchup, mustard, relish, barbeque sauce, jelly, ice cream toppings, honey, etc. Other uses include OTC drugs, fruit juices, milk, water, glass cleaner, etc.

Safe-Gard 490
A Unipac (formerly 3M Cap-Seal) product. SG-490 is a two piece peelable innerseal. It provides a hermetic seal against leaks, contamination and oxidation on glass bottles.

Safe-Gard 602
A Unipac (formerly 3M Cap-Seal) product. When Safe-Gard 18EP is supplied as a facing only, it is called Safe-Gard 602. See Safe-Gard 18EP for composition and typical uses.

Safe-Gard 603
A Unipac (formerly 3M Cap-Seal) product. Safe-Gard 603 is a .003" aluminum foil version of the Safe-Gard 18EP facing. See Safe-Gard 18EP for composition and uses.

Safe-Gard 634
A one-piece variation of Safe-Gard 18EP which provides a peelable or strippable seal over the mouths of P/E, P/P, PVC, P/S and ABS containers. SG 634 is frequently used for pull-tab innerseal applications. It is also supplied as a two-piece innerseal, wax bonded to a .030" pulpboard backing, for applications where a high quality, chemically resistant closure liner must remain in the cap for re-seal purposes. See SG 18EP for composition. Uses include pull-tab innerseals on plastic milk, water and juice containers. If the tab is folded over inside the cap, another product, CAG Release Paper, can be used as a back-up liner to prevent the tab's heat-sealable surface from sealing to the inside of the cap. The two-piece version described in the paragraph above is used in packaging liquid drugs.

Safe-Gard 635
A one-piece variation of Safe Gard 18EP which provides a peelable or strippable seal over the mouths of P/E, P/P, PVC, P/S and ABS containers. Safe-Gard 635 is frequently used for pull-tab innerseal applications. See SG 18EP for technical information. SG 635 is commonly used as a pull-tab innerseal on plastic milk, water and juice containers. If the tab is folded over inside the cap, a companion product, CAG Release Paper, can be used as a back-up liner to prevent the heat-sealable surface on the tab from sealing to the inside of the cap.

Safe-Gard 75M
A Unipac (formerly 3M Cap-Seal) product. An innerseal which provides a fused, tamper indicating seal on P/E containers. It is designed for use in plastic closures. It is white lined pulpboard wax-bonded to an innerseal consisting of .001" aluminum foil with a .002" heat sealable polyester film. Safe-Gard 75M offers excellent chemical resistance and superior barrier properties as well as a tough durable seal. It has broad market acceptance for use with industrial chemicals, automotive products, pharmaceutical

and food products. Typical packaging applications include innerseals for orange juice, patent drugs, windshield washer solution, anti-freeze, motor oil, household cleaners, insecticides, herbicides, etc.

Safe-Gard 90
A Unipac (formerly 3M Cap-Seal) product. An innerseal which provides a fused, tamper indicating foil seal over the mouth of PET and PVC containers. SG 90 is the industry standard for edible oils packaged in PVC containers. Safe-Gard 90 is white lined pulpboard wax-bonded to an innerseal consisting of .001" aluminum foil with a .005" heat sealable polyester film. It can be supplied as facing only. The excellent barrier properties and broad induction sealing range make this product ideal for applications in the food industry. Typical packaging applications include innerseals for vegetable oils, mouthwash, etc.

SAN
Styrene acrylonitrile. Thermoplastic copolymer with good stiffness, scratch, chemical and stress-crack resistance. Similar to general purpose polystrene except for improved impact resistance and barrier properties; increased rigidity and UV stability; natural straw color; transparent.

Saralene
Manufactured by SANCAP Liner Technology, Inc. Saralene is a white pigmented or clear vinylidene chloride-vinyl chloride copolymer film laminated to P/S foam on one side and P/E film on the other side. Color: White. Suggested product uses include after shave lotion, cold cream, cologne, deodorant (cream), glass wax, peroxide, poison ivy lotion, shampoo, concentrated coffee, corn oil, cough syrup, alcohol and fruit extracts.

Scoops
A wide variety is available, including P/P and P/E measuring scoops, PET powder scoops and P/P double-end scoops.

Screw-Thread Vial
A vial with a very short neck and an outside screw-thread finish.

Sealing Discs
Various sizes to fit most single and double wall jars, and cosmetic cases. Options include embossing and with or without tabs.

Sealing Surface
That portion of a glass or plastic container finish which will make contact with the interior liner of the cap to effect the seal.

Seam on Top/Side of Finish
A finish defect. A fin of glass across the top or the side of the finish.

Seamless
Made in one piece without a joint.

Sept Seal
Manufactured by SANCAP Liner Technology, Inc. SEPT SEAL is a backing material to which facings are laminated in the manufacture of duplex liners. Is is a heat sealable film coated with P/E.

Serum Vial
A vial having a neck with a relatively small opening to receive a rubber plug stopper and aluminum seal.

SFYP
When pressure sensitive or heat induction liners are printed with the words "SEALED FOR YOUR PROTECTION".

Shape
In RapidFind, Shape is one of the search criteria. In the Glass and Plastic product types, Shape refers to the shape of the bottom of the container. Shape is not a search criteria in the Closure product type.

Shear Marks
A general defect. C-shaped marks making a definite line in the glass.

Sheeting
Polyethylene, rubber, Lexan, and acrylic sheeting.

Shelfline
A line of glass containers (used by drug and chemical companies) that was designed to give the packer specific advantages on label space, maximum size, appearance and easy pouring, combining the best features of Boston Round and F-style containers.

Shell Vial
A cylindrical container, usually made of glass, characterized by having straight sides, being neckless, and having a flat bottom. Made by sealing one end of a glass tube of appropriate diameter and length.

Shingling
Solvents leaching through a plastic container.

Shoulder
(1) That part of a container between the main body and the neck. (2) That portion of a closure immediately adjacent to and including the corner where top and skirt join. (3) In a can, an off-set on a straight side to act as a stop or support.

Shoulder Check
A shoulder defect. A check which is shallow and in the surface, usually wavy in appearance.

Shrink Bands
Stock and custom sizes of PVC and PETG shrink bands, including tamper evident, seamless and seamed bands, cellulose self-sealing bands and Viscose Celon shrink bands. Options include printing and color decoration.

Shrink Labels & Bands
Pre-decorated plastic sleeves that are slipped over the container and heated until they conform to the surface of the container. Same principle as the sleeve label, but superior for odd and small shapes.

Sicocote 250A
A SANCAP Liner Technology product. White paper PVDC - polyethylene. Sicocote 250A is a construction of white pigmented P/E and polyvinylidene chloride (PVDC) on a bleached Kraft paper. Color: White. Suggested product uses include concentrated coffee, corn oil, fruit extract, alcohol, after shave lotion,

cold cream, cologne, cough syrup, cream deodorant, glass wax, starch, poison ivy lotion and radiator compound.

Sicocote 255A
A SANCAP Liner Technology product. White paper - polyethylene PVDC. Sicocote 255A is a construction of white P/E and polyvinylidene (PVDC) on a bleached Kraft paper. Color: Bleach Kraft Paper. Suggested product uses include after shave lotion, cold cream, cologne, cough syrup, hand soap, hair shampoo, concentrated coffee, glass wax, fruit extract, syrup and vinegar.

Sicocote 260
A SANCAP Liner Technology product. Natural Kraft paper PVCD polyethylene. Sicocote 260 is a construction of clear P/E and polyvinylidene chloride (PVDC) on a natural Kraft paper. Color: Natural. Suggested product uses include after shave lotion, cold cream, cologne, cough syrup, hand soap, poison ivy lotion, hair shampoo, alcohol, concentrated coffee, corn oil, syrup, fruit extract, vinegar and radiator compound.

Sicocote 265
A SANCAP Liner Technology product. Natural Kraft paper - polyethylene - PVDC. Sicocote 265 is a construction of clear P/E and polyvinlidene chloride (PVDC) on a natural Kraft paper. Color: Natural. Suggested product uses include after shave lotion, cold cream, cologne, cough syrup, hand soap, poison ivy lotion, hair shampoo, concentrated coffee, corn oil, fruit extract, syrup, vinegar and radiator compound.

Sicocote 417
A SANCAP Liner Technology product. Paper-backed aluminum foil with a heavy Saran coating. Sicocote 417 consists of a paper-backed aluminum foil with two coatings applied - a vinyl first coat and a saran second (top) coat. Color: White. Suggested product uses include after shave lotion, astringent, baby cream, beauty cream, cologne, deodorant stick, hair cream, hair shampoo, antacid liquids, mineral oil, floor cleaner and polish, furniture cleaner and polish, waxing compound and auto cleaner and polish.

Sicocote 470
A SANCAP Liner Technology product. Saran coated white paper. Sicocote 470 is a pigmented copolymer vinylidene chloride-acrylonitrile coating on a suitably primed white paper. Color: White. Suggested product uses include concentrated coffee, cottage cheese, mayonnaise, mustard, salad dressing, wine, cough syrup, mineral oil, liquid shoe polish, floor cleaner, hair dye, pine oil disinfectant and liquid shoe polish.

Sicocote 700
A SANCAP Liner Technology product. Paper-backed polyethylene coated aluminum foil. Sicocote 700 is a paper-backed aluminum foil coated with a white pigmented P/E. Color: White. Suggested product uses include after shave lotion, cologne, cream deodorants, cough syrup, olives, pickles, automotive polish, bleaching fluid, brake fluid, rubber cement, disinfectant, furniture polish, paint and solvents.

Sicocote 708
A SANCAP Liner Technology product. Paper-backed vinyl coated aluminum foil, with a slightly heavier coating of vinyl than Sicofoil. Sicocote 708 is a paper-backed aluminum foil liner coated with a pigmented vinyl chloride-acetate copolymer applied as a two coat system. Color: White. Suggested

product uses include after shave lotion, astringent, facial cream, cream deodorant, hair cream, shampoo, antacid preparations, floor cleaner, bleach, liquid detergent, mustard, vegetable oil and whiskey.

Sicofoam
Manaufactured by SANCAP Liner Technology, Inc. Sicofoam is a backing material to which facings are laminated in the manufacture of duplex liners. It is a P/E foam which is extruded to the thickness desired.

Sicofoil
A SANCAP Liner Technology product. Paper-backed vinyl coated aluminum foil. Sicofoil is a paper-backed aluminum foil liner coated with a pigmented solution of vinyl chloride-acetate copolymer. Color: White. Suggested product uses include after shave lotion, astringent, baby cream, beauty cream, deodorant stick, hair cream, shampoo, cleaners and polishes, waxing compound and vegetable oil.

Sicoran WS
A SANCAP Liner Technology product. White pigmented Saran film on white paper. Sicoran WS is a white pigmented vinylidene chloride - vinyl chloride copolymer film mounted on white Kraft paper. Color: White. Suggested product uses include after shave lotion, cold cream, cologne, cough syrup, cream deodorant, hand soap, poison ivy lotion, hair shampoo, tincture of iodine, alcohol, concentrated coffee, corn oil, fruit extract, glass wax, starch and radiator compound.

Sifter Fitment
A plastic or metal component of a package designed to allow shaking out of dry products, as with a table salt shaker. Snaps over bead, with metal or plastic cap applied over the fitment.

Silkscreening
A method of printing in which the ink is forced through a design on a taut screen, made of nylon, wire, or other tough screen material, onto the container to be printed. This method can be applied to closures, liners and most containers regardless of shape or size.

Size
In SourceBase, Size is one of the search criteria. In the Glass and Plastic product types, Size refers to the nominal capacity of a bottle or jar. The nominal capacity is the intended capacity of the container. It is expressed in fluid ounces (oz), gallons (gal), milliliters (ml), drams, etc. In the Closure product type, Size refers to the outside diameter of a bottle or jar's neck finish, including the threads. The size is usually designated in millimeters (mm).

Skirt
The vertical part of a closure below the shoulder.

Sleeve Label
A decorated, plastic label made into a tubular form that fits over and on plastic bottles.

Slip Cap
(1) A metal closure with indentations on its sides to make a friction fit on a vial with a slip-cap finish. (2) A closure made of soft material such as polyethylene or rubber, without threads, to be pushed over the tip or neck of a container and held in place by friction.

Snap Top
The most prevalent hinged closure. This closure features a spud and orifice design that is sanitary and self cleaning to prevent clogging. It is available in a wide range of orifice sizes. The snap type can also be designed with an off center spout to direct product flow. The pour spout can be easily lined with a variety of heat sealed materials to ensure product freshness.

SoftSeal 200
Foamed EVA core with top and bottom layers of .002" thick low density polyethylene.

Solid Poly
Solid low density polyethylene.

Source-Certified
Within the context of raw material use, source-certified refers to materials that have been certified through programs run by organizations including, but not limited to, the Forest Stewardship Council and the Sustainable Forestry Initiative.

Sourcing
Sourcing, as used in the indicator definitions, refers to and includes all of the functions involved in the growth, harvest or extraction and processing or raw materials and the collection and processing of recycled and reused materials.

Space Saver
Refers to any pharmaceutical package such as the shelfline or blake style bottle which, because of it rectangular shape, takes up less storage space on the druggist's shelf.

Spatulas
Varieties for the cosmetics, pharmaceutical, food and laboratory markets.

Specimen Mailers
Fiberboard, paper screw-cap and aluminum specimen mailers.

Spike
A bottom defect. A small projection of glass in the center of the bottom of the container.

Spin Welding
A process of fusing two objects together by forcing them together while one of the pair is spinning, until frictional heat melts the interface. Spinning is then stopped and pressure held until they are "frozen" together.

Split Finish
A finish defect. A finish which has a crack, or split, across the top surface, extending from the top of the finish downward.

Spray Frosting
The technique of spray coating a glass container to create a frosted, matte translucent appearance.

Sprayers
Trigger, finger-tip, pump, continuous spray and metering sprayers, hose-end sprayers for lawn and

garden, and compressed air sprayers. Different types of decoration are available, including silk-screen and hot stamp decoration.

SS
In plastic bottle manufacturing, silkscreen decoration. Also S/S.

ST-25P
A 3M Cap-Seal product. PVDC coated paper closure liner material that offers good resistance to chemicals, excellent resistance to brine solutions and vegetable oils, and offers very low moisture vapor and gas transmission rates. ST-25P imparts no taste or odor to the sealed product. The waxed version provides increased protection for products such as salad dressing and mayonnaise. ST-25P is a natural kraft tan color. Typical packaging applications include closure liners for citrus fruit extracts, pickles, vegetable oils, mayonnaise, salad dressings and powdered milk, as well as for anti-perspirants, alcoholic beverages, volatile disinfectants, etc.

Stabilizer
An ingredient used in the formulation of some plastics, especially elastomers, to assist in maintaining the physical and chemical properties of the compounded materials at their initial values throughout the processing and service life of the materials.

Stacker Cap
A closure designed specifically to nest with the bottom plate of a container to facilitate the stacking of filled containers on top of each other.

Stakeholders
As defined in the Global Reporting Initiative Guidelines, stakeholders are individuals or organizations with a legitimate interest in a given situation, action or enterprise. For performance measurement purposes, stakeholders are broadly defined as those groups or individuals; 1) who can be reasonably expected to be affected by an organization's activities, products and/or services; or 2) whose actions can reasonably be expected to affect the ability of the organization to effectively implement its strategies and achieve its objectives.

STC
Single trip container.

Stelvin(R)
The Stelvin(R) neck finish can be found on some glass wine bottles. It is a screw thread finish designed to accommodate the Stelvin(R) closure, an aluminium cap with a tamper evident breakaway band. Offers product preservation, a modern look and practicality. Offered by Alcan Packaging (Pechiney).

Stencils
Stencil kits and stenciling systems for a wide range of applications, including safety and maintenance.

Sterilization
Gamma irradiation, ethylene oxide, and electron beam sterilization. Installation of sterilization systems available for companies requiring in-house processing. Sterilizing cleaners and sterilized tests also available.

Stippling
A decoration consisting of a system of closely spaced small raised dots on the outer surface of a container or closure.

Stones
A general defect. Small inclusions of refractory or unmelted batch materials.

Stopper
A solid, cork-shaped, ground-to-fit plug used to seal some bottles.

Stoppers, Rubber
Laboratory quality, micro, and corrosion resistant stoppers.

Storage Life
The period of time during which a product can be stored under specified temperature conditions and remain suitable for use. Sometimes called shelf life or working life.

Stress Cracking
The susceptibility of a thermoplastic article to cracking or crazing under the influence of certain chemicals and stress. Frequently accelerated by the environment to which the plastic is exposed. The stresses which cause cracking may be present internally or externally or may be combinations of both.

Stressed Water Sources
The term "stressed source" or "stressed Watershed" refers to sources of water where the draw down rate is greater than the recharge rate. On a regional basis, stressed sources of water cannot provide enough water for all uses - Agricultural, industrial and domestic - due to depletion of water quantity and/or quality. The UN Commission on Sustainable Development suggests that water sources are stressed when freshwater resources fall below 1000-1500 cubic meters per capita per year.

Striation
In plastic bottle manufacturing, a longitudinal line in the parison or bottle due to a disturbance in the melt path.

Strip Mold
Mold action in the manufacture of closures: After the injection cycle is completed, the cavity is removed and the stripper sleeve moves forward forcing the closure to flare and strip over the core.

Style
In RapidFind, Style is one of the search criteria. In the Glass and Plastic product types, Style can refer to standard industry names, such as Cylinder, Boston Round, F-Style, Modern Round, Wide Mouth (W/M) Jar, etc. If a name is not standard industry-wide, Style refers to the sides of the bottle, i.e., straight sided, tapered, etc. In the Closure product type, Style designates standard industry names. If a closure has threads, the Style is Continuous Thread. Other Styles include Dispensing, Child Resistant Closure (CRC), etc.

Styrene Acrylonitrile
Similar to general purpose polystyrene except for improved impact resistance and barrier properties; increased rigidity and UV stability; natural straw color; transparent. Also see SAN.

Sunken Shoulder
A shoulder defect. A shoulder which is not fully blown.

SureSeal 200
Foamed low density polyethylene core with top and bottom layers of .002" thick low density polyethylene.

SureSeal 300
Solid EVA. The last two digits in the 300 series number indicate the percentage of vinyl acetate in the EVA.

SureSeal 400
Solid blend of low density polyehtylene and polyisobutylene. The last two digits in the 400 series number indicate the percentage of polyisobutylene in the blend.

SureSeal 500
Foamed low density polyethylene core with top and bottom layers of .002" thick high density polyethylene.

SureSeal 600
Foamed low density polyethylene core with top and bottom layers of .002" thick polypropylene.

SureSeal 700
Core is a proprietary blend of foamed polyolefins. Top and bottom layers are .002" thick low density polyethylene.

Surface Treating
Any method of treating the surface of a plastic item to accept inks, paints, adhesives and chemical, flame and electronic treating.

Sustainability (Corporate)*
Sustainability in the corporate sector encompasses strategies and practices that aim to meet the needs of stakeholders today while seeking to protect, support and enhance the human and natural resources that will be needed in the future.
*Numerous definitions of sustainability exist and increasingly organizations are customizing definitions of sustainability to incorporate the broadly accepted principles of the concept (i.e., a blending of economic, environmental and social concerns) with their own specific visions, goals and objectives. The definition provided here is intended to be generic and illustrative of the basic principle.

Sustainable
Process or state that can be maintained at a certain level indefinitely, to provide the best outcomes for the human and natural environments both now and into the indefinite future.

Sustainable Packaging System
A target vision for companies to strive for packaging that can be transformed into a cradle to cradle flow of packaging materials in a system that is economically robust and provides benefit throughout its life cycle. Sustainable packaging that is:

Beneficial, safe and healthy for individuals and communities throughout its life cycle;
Meets market criteria for performance and cost;
Sourced, manufactured, transported and recycled using renewable energy;
Maximizes use of renewable or recycled source materials;
Manufactured using clean production technologies and best practices;
Made from materials healthy in all probably end-of-life scenarios;
Physically designed to optimize materials and energy;
Effectively recovered and utilized in biological or industrial cradle to cradle cycles.

SW-25P
A 3M Cap-Seal product. PVDC coated paper closure liner material with good resistance to chemicals, excellent resistance to brine solutions and vegetable oils, and very low moisture vapor and gas transmission rates. SW-25P imparts no taste or odor to the sealed product. The waxed version of this paper provides increased protection for products such as mayonnaise and salad dressings. SW-25P is white in color. Some typical packaging applications include closure liners for citrus fruit extracts, pickles, vegetable oils, mayonnaise, salad dressings and powdered milk, as well as for anti-perspirants, alcoholic beverages, volatile disinfectants, etc.

Swabs, Medical
Cotton and foam swabs.

Syringes
Varieties include a dual syringe with snap-off nozzle tip, and specialty syringes with various tips for a wide variety of applications, including infant care, feeding small animals or birds, and applying glues, dyes, lotions, resins and inks.

Letter T

T/H
Abbreviation for tight head. Used by drum and pail manufacturers to indicate that the lid is a structural component of the drum or pail, instead of a separate part.

Tacseal
A form of liner usually of glassine that is applied over and bonded to a waxed under-liner. When cap is removed from glass, the tacseal liner adheres to the glass lip as a security-type liner.

Tamper Resistant Seal
A seal that cannot be opened without partially destroying the cap or otherwise showing evidence of tampering.

Tamper-Evident Band
(1) A secondary closure made of aluminum, steel, plastic, tape or film to be applied over a primary cap-closure of a rigid container, and designed to require tearing off by manual effort before the container is opened or contents removed. Purpose is to reveal any tampering with the primary closure. (2) Also a perforated extension of tamper-evident closures.

Tanks, Storage
Metal or plastic containers designed for liquid storage, processing, and transporting.

Tear Strip
A narrow ribbon of film, cord, etc., usually incorporated mechanically in the wrapper or overwrap during the wrapping operation or imbedded in a carton to facilitate opening of the package. The scored strip on a key-opening can. Tear tape.

Tear Tab
An extension of the tearing strip on a package to permit easy grasping with the fingers.

Tear Under Finish
A finish defect. A finish which has a small surface section of glass torn from under it.

Teflon FEP
Teflon FEP is translucent, flexible and feels heavy because of its high density. It resists all known chemicals except molten alkali metals, elemental fluorine and fluorine precursors at elevated temperatures. It should not be used with concentrated perchloric acid. FEP withstands temperatures from -270 degrees C to +250 degrees C and may be sterilized repeatedly by all known chemical and thermal methods. It can even be boiled in nitric acid.

Teflon PFA
Teflon PFA is translucent and slightly flexible. It has the widest temperature range of the fluoropolymers from -270 degrees C to +250 degrees C, with superior chemical resistance across the entire range. Compared to TFE at +277 degrees C, it has better strength, stiffness and creep resistance. PFA also has a low coefficient of friction, outstanding anti-stick properties and is flame resistant.

Tefzel ETFE
Tefzel ETFE is white, translucent and slightly flexible. It is a close analog of the Teflon fluorocarbons, an ethylene tetrafluoroethylene copolymer. ETFE shares the remarkable chemical and temperature resistance of Teflon TFE and FEP, and has even greater mechanical strength and impact resistance.

TFE
Solid Teflon: .030 solid unpigmented polytetrafluoroethylene.

Therimage
The generic term is heat transfer labeling. Process in which a label is applied to a container by heating the label and the surface of the bottle. The heating of the label activates the adhesive on it. After application, the labeled container is flamed to set the label. Used for decorating plastic bottles, glass bottles, and folding cartons.

Thermal Stress Crack
Crazing and cracking of some thermoplastic resins which result from over-exposure to elevated temperatures.

Thermoforming
Custom vacuum and pressure thermoforming. Thermoformed packaging is available for food and product displays, blister packs, clamshells and tri-folds.

Thermoplastic
A plastic that will repeatedly soften when heated and harden when cooled. Typical packaging thermoplastics are polystyrenes, polyethylenes, acrylics, vinyls, and nylons.

Thermoplastic Resin
A resin having the property of becoming soft upon application of heat, rigid at normal temperature, and plastic on each reapplication of heat.

Thermoset
(1) A material that will undergo or has undergone a chemical reaction by the action of heat, catalysts, ultra-violet light, etc., leading to a relatively infusible and cross-linked state. Typical of the plastics in the thermosetting family are aminos (melamine and urea), polyesters, alkyds, epoxies, and phenolics. (2) A material which hardens when heated and does not again soften when reheated.

Thin Shoulder
A shoulder defect. A shoulder which has a thin section, characterized by the difference in color between thick and thin glass, or by the appearance of a wave above and below the thin section.

Thread
The indented curved formed section of the cap on the skirt that engages and matches the thread of the container for screw fit purposes. The thread may be continuous or interrupted.

Threads Not Filled Out
A finish defect. A finish with threads or lugs that are not completely blown or pressed to the shape of the cavity in the neck ring.

Tinplate
In closure applications, refers to tin-plated steel. It is sheet steel, usually of special formula and temper, coated on both sides with a controlled thickness of pure tin.

Tinplate (electrolytic)
Black plate that has been coated on both sides by electro-deposition of commercially pure tin, which is then usually melted to improve the appearance and properties of the tinplate. Coating weights available are generally lower than on hot-dipped. Commonly used weights are: 0.20, 0.25, 0.50, 0.75 and 1.00 pound tin per base box. Tinplate numbers refer to these weights. Lower weights of 0.05, 0.10, and 0.15 are also possible for some applications.

Tins, Decorative
Specialty metal packaging. Usually recyclable. Decorative slip cover tins are used to advertise product. Some tins are considered collectors items after product packaged inside is consumed.

TL
Truckload.

Tolerance
A specified allowance for deviations in weighing, measuring, etc., or for deviations from the standard dimensions or weight.

Top Load
The amount of weight bearing on the top of a container. The term is sometimes used to indicate the maximum load the container will bear without becoming distorted.

Torque - Application
The rotational force with which a closure is applied to a bottle finish during capping. It affects seal integrity and tightness between bottle and closure. A properly established application torque will provide sealing integrity under expected conditions of temperatures, vibration, humidity, and shock.

Torque - Chart
From Owens-Brockway, suggested tightness for various size closures in inch-pounds of hand-applied torque: Closure Size Suggested tightness of application ì in inch pounds torque as applied by hand 8 MM 3 - 7 10 MM 4 - 8 13 MM 5 - 9 15 MM 5 - 9 18 MM 7 - 10 20 MM 8 - 12 22 MM 9 - 14 24 MM 10 - 18 28 MM 12 - 21 30 MM 13 - 23 33 MM 15 - 25 38 MM 17 - 26 43 MM 17 - 27 48 MM 19 - 30 53 MM 21 - 36 58 MM 23 - 40 63 MM 25 - 43 70 MM 28 - 50 83 MM 32 - 60 86 MM 40 - 65 89 MM 40 - 70 100 MM 45 - 70 110 MM 45 - 70 120 MM 55 - 95 132 MM 60 - 95

Torque -- Removal
The rotational force with which a threaded closure is removed from a bottle finish. It defines the amount of rotational force necessary to loosen, open, or remove the closure. A properly designed package should have a removal torque range appropriate for its intended use and the consideration of any requirements for child resistant or tamper evident closure needs.

Torque -- Stripping
The application torque which is sufficient to cause the closure and/or bottle finish to distort and override the matching closure/bottle threads, resulting in loose caps, no seal, or package component deformation.

Torque Tester
A type of torque meter used for measuring removal torque of screw caps, lug caps, or twist-off crowns. Can also be used to apply screw or lug caps to a known predetermined tightness.

Total Suspended Solids
Total Suspended solids are a water quality measurement that refers to the dry-weight of particles trapped by a filter, typically of a specified pore size. TSS can include a wide variety of material, such as silt, decaying plant and animal matter, industrial wastes and sewage. High concentrations of suspended solids can cause many problems for stream health and aquatic life.

Toxicant
A toxicant is defined by the U.S. EPA as a harmful substance or agent that may injure an exposed organism, and a toxic substance as a chemical or mixture that may present an unreasonable risk of injury to human health or the environment. A list of U.S. EPA regulated toxicants is provided in the Toxic Substances Control Act (TSCA) Chemical Substances Inventory. European Union regulated toxicants are listed in the EU's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) regulations.

Persistent Bioaccumulative Toxic Substances (PBTs): PBTs, according to the U.S. EPA, are chemicals that are toxic, persist in the environment and bioaccumulate in food chains and, thus, pose risks to human health and ecosystems. PBT's transfer easily among air, water and land, and span program, geographical and generational boundaries. Refer to the U.S. EPA list of PBTs and the EU listing of PBTs.

Carcinogens, Mutagens and Reproductive Toxicants (CMRs): The U.S. Occupational Safety and Health Administration (OSHA) defines carcinogens as substances that are either known to cause cancer in human or animals or are suspected of being capable of causing cancer in humans; mutagens as substances that cause chromosomal damage or genetic alterations; and reproductive toxicants as substances with lethal teratogenic (causing malformation or physical defects) effects in a developing fetus or embryo and substances that affect the fertility of males and/or females. Refer to the list of substance treated as carcinogens by OSHA. The State of California's Proposition 65 includes the most comprehensive list of CMRs regulated in the U.S. Also refer to the EU consolidated list of CMRS.

Toxicant Migration: Toxicant migration, refers to the undesirable transfer of toxicants from packaging to product.

Toys, Plastic
Stock plastic toy telephones, tool kits, banks, doll house furniture, batons and pompoms are available.

TPE
Thermoplastic elastomer.

Transfer Bead
A projecting bead on the outer surface of some glass containers, usually just below the finish, to provide a surface of engagement for the jaws of handling devices during manufacture.

Translucent
Descriptive of a material or substance transmitting some light, but not clear enough to be seen through.

Transparent
Descriptive of a material or substance capable of a high degree of light transmission (e.g., glass). Some polypropylene films and acrylic moldings are outstanding in this respect.

Transport
Transport, in terms of sustainable packaging, refers to the transport of raw, recycled, reused or final packaging materials, packaging components or units of packaging between supply chain partners (e.g., transport of substrate to a converter or transport of packaging units to a filer; it does not include transport of packaging that contains product).

Trays
PET cake and ice cream roll trays, glass trays, medical prep, sterilized instrument and procedure set-up trays, produce trays, CPET and HDPE trays for use in microwave or conventional ovens, food cutting, display, and carrying trays, and wallpaper and paint roller trays.

Tri-Foil
Manufactured by Tri-Seal, a Tekni-Plex Company. Liner utilizing F-217 as a backing material bonded to a polyester film/white LDPE/aluminum foil facing. Provides very good control of moisture vapor and gas transmissions.

Tri-Gard Series
Manufactured by Tri-Seal, a Tekni-Plex Company. Liner with F-217 backing material bonded to any of several heat seal coatings. When adhered to aluminum foil and exposed to an electromagnetic field

from an induction sealer, the liner will bond to containers made of LDPE, HDPE, P/S, P/P, PET and PVC. Also available as Tri-Gard Separating which provides a clean peel on HDPE, LDPE, P/P and PET bottles.

Tri-Lam Series
Manufactured by Tri-Seal, a Tekni-Plex Company. Liner with an F-217 backing material and any of various face materials. The face material, in thicknesses of 0.0005" to 0.002" depends on the product being packaged. Possible face materials include polyester, PVDC-coated polyester, PVDC film, nylon/EVOH, EVA/EVOH and aluminum foil.

Tri-Pen Series
Manufactured by Tri-Seal, a Tekni-Plex Company. Liner with either F-217 or F-8268 backing material bonded to PEN face material. Provides excellent carbon dioxide barrier, oxygen barrier, moisture barrier, good thermal properties, and stability. Uses include health care and pharmaceutical items, personal care products, food, beverages, and industrial.

Tri-So2rb Liner
Manufactured by Tri-Seal, a Tekni-Plex Company. Liner with capability to remove oxygen from sensitive areas, including oxygen initially present in the headspace, oxygen entrapped in the food or beverage, and oxygen that is permeating into the package over time.

Tubes
Stock and custom plastic and aluminum dispensing tubes and collapsible aluminum tubes in various sizes, styles and shapes. Decorating and stock or custom closure options are available.

Tubes, Flex
PVC, PETG and cellulose propionate flex tubing. Various sizes are available. Shapes include square, round, triangle and rectangle. Options include shell, beaded, hang-up and threaded.

Tubes, Mailing
Recycled paperboard and converted paperboard tubes, composite, and pinched end tubes.

Tubing
Rollstock, poly, anti-static poly, extruded plastic, paper, composite, silicone, corrosion resistant, seamed and seamless PVC, rubber, mini-bore, flame retardant P/E, PETG.

Tubs
HDPE, LDPE, P/P, P/E, P/S, PET and PVC tubs. Various sizes, colors and shapes are available. Lids are also available, as well as printing, silk screening, labeling and decorating.

Tubular Glass
Containers made from preformed hollow glass tubes. The tubes are cut into desired length, and by heat and pressure they are shaped into the desired configuration. Unlike blown glass, tubular items do not require molds.

Turret
An injected molded two piece dispensing closure. It requires that the turret "spout" be lifted with a finger to open and dispense.

Type I Glass
A borosilicate glass which releases the least amount of alkali. It is commonly used for pharmaceutical or fine chemical products that are sensitive to PH changes.

Type II Glass
A soda lime glass (Type III) that has been de-alkalized by treating the interior surfaces to eat away the alkali on or near the glass surfaces. The undesirable characteristic of Type II Glass is that the treating etches the surface, causing a frosted appearance.

Type III Glass
A soda lime glass and the most common in use. Type III is compatible with most items: food, beverages, common chemicals, etc.

Letter U

Ultraviolet
Zone of invisible radiations beyond the violet end of the spectrum of visible radiations. Since UV radiation is a shorter wavelength than visible, it is of higher energy that is sufficient enough to initiate the chemical reactions that degrade most plastics.

UN Number
The four-digit number assigned by the United Nations Committee of Experts on the transport of dangerous goods. These numbers identify a particular group of substances.

Uneven Distribution
A general defect. Thin and thick areas, especially in the side walls of the ware.

Unit Dose Packaging
A package which contains one discrete dosage form, i.e., one tablet, one capsule, one 2 ml quantity of liquid, etc. A unit package consists of the unit quantity, protective wrapping, cushioning, and identification marking, up to but not including the shipping container. Single dose unit packaging is used for foods, drugs, cosmetics, medical devices and some industrial products.

Unit Mold
A simple mold which comprises only a single cavity without further mold devices, and is used for the production of sample containers.

Unit of Packaging
A unit of packaging includes all the components required to create a usable package, e.g., a fiber milk carton with a HDPE pouring spout, security seal, cap and any auxiliary materials used such as labels, adhesives, inks and/or coatings.

Unitized Load
A load in which all the containers or articles which may consist of two or more units combined by interlacing or, more commonly, bound together by means of tension strapping, plastic shrink or stretch films.

Unscrewing Mold
Mold action in the manufacture of closures. After the injection cycle is completed, the mold cavity is

removed. The core then begins to rotate, literally unscrewing the core from the closure, as a stripper sleeve moves forward to eject the closure.

UPC Symbol
Universal product code. A 10 digit, all numeric code which uniquely identifies a product. The first 5 digits, called the manufacturer identification number, identify each manufacturer or organization controlling the label of the product. The second 5 digits, called the item code, identify individual items within the companies and are assigned by the manufacturer or organization controlling the label of the product.

Urea
Generic name for urea-formaldehyde. A thermosetting compound used to fabricate light colored plastic closures as opposed to phenol which is for dark closures.

UV Stabilizer
Any chemical compound which, when mixed with a thermoplastic resin, selectively absorbs UV rays and minimizes chemical and/or physical changes that may be engendered by UV.

Letter V

V-33-2A Unicap (formerly 3M Cap-Seal) product. White vinyl solvent coated on white sulphite paper.

Vacuum Closure
Any closure equipped with a liner capable of holding a vacuum.

Valve Cap
A closure that includes a valve to regulate the flow of the product from the container.

Valve Seal
A Valve Seal finish requires a closure mechanism that will seal a container on the inner portion of the container wall, at the top of the finish.

Valves
Styles included metering, corrosion resistant, and check-valves, valves for flexible tubing and valve manifolds.

Vent
In a mold, a shallow channel or minute hole cut in the cavity to allow air to escape as the material enters and to facilitate ejection of the molded part from the cavity.

VentSeal 76
SureSeal 200 series material with V-grooves indented .015" + or - ì .005".

Vials, Glass
Styles include tubular, serum, injectable antibiotic, safety-coated, autosampler, screw thread, patent lip, display, shell, capsule, and perfume sampler vials. Various colors are available.

Vials, Plastic
Child resistant, snap-cap non-child resistant, threaded, and safety-coated vials. Various sizes and colors are available.

Vinyl
Informal generic term for any of the vinyl resins, or for film, or other product made from them.

Vinyliner
A SANCAP Liner Technology product. Vinyl coated white paper. Vinyliner Plain is a pigmented vinyl chloride-acetate copolymer coating on a primed bleached Kraft paper. Color: White. Suggested product uses include after shave lotion, bleaching fluid, castor oil, cuticle remover, expectorant, eye wash, face cream, formaldehyde, glycerine, hair tonic, witch hazel, mineral oil, smelling salts, alcohols, fruit extracts, writing ink, shoe dressing and hydraulic brake fluid.

Virgin Material
A material or liquid that has not been subjected to use or processing other than that required for its original manufacture.

Viscose Band
A secondary closure or seal made of regenerated cellulose, applied in a wet state over the cork, metal or plastic cap that forms the primary closure, and then shrunk tight by drying. It is used to prevent tampering, to dress up the package, to provide brand identification, to aid the primary closure in preventing escape of products, to prevent cap from becoming unscrewed, etc.

Volume
Also known as displacement or capacity. (1) The amount of water displaced by a model of a container; used to estimate its capacity. (2) The amount of product a container is designed to hold, i.e., up to the fill-point of the container. (3) Also, the overflow capacity, i.e., amount of product a container will hold when filled to overflowing.

V-Seal
A small non-flexible v-shaped ring molded into a closure so that the v makes contact with the sealing surface (land) of the container's finish during normal sealing operations. The V-Seal requires compression to be effective. Most commonly used for sealing tubes.

Letter W

W (Full Wax)
Full Wax (W). Full wax treatment is generally used on wide mouth closures as a caulking agent. It is difficult for many liner facings to provide a satisfactory seal on wide mouth containers. The larger the finish, the greater the tolerance in both container and finish. Inherent waves and dips in large finishes also contribute to this condition. The full wax treatment is generally suggested for closures 58mm and above, primarily as a sealing aid. It also provides an additional moisture barrier and acts as a lubricant similar to the LW and LF coating treatments.

Waist
The central portion of a container which has a smaller cross-section than the adjacent areas.

Warehousing
Warehousing services are available.

Wash Board
A general defect. A series of horizontal waves or folds on the side of the bottle.

Water Consumption and Use
The term "water consumption" is used to indicate; 1) fresh water (excluding rain) that is mechanically diverted from a source and then used in such a way that it is not available again as liquid fresh water; or 2) water that is degraded during use such that it cannot be collected for reuse. The difference between water "use" and water "consumption" is that consumption causes the water to become unavailable for direct or immediate use. An example of water "use" is water used in paper production processes that is collected, processed and reused on site. An example of water "consumption" is water that evaporates during a production process. Another example of water consumption is water that becomes an ingredient of a final material such as that used in water-based ink.

Water Vapor Perm
The property of a material that permits water vapor to pass through its structure. This property has measurable values that can be determined under specified conditions of time, temperature and the water vapor pressure differential between two sides of a material or between two sides of material or between the inside and the outside of a container.

Wavy Appearance
A general defect. Irregular surface on either the inside or outside of the container.

Wax Coatings
Wax is widely used as a component of liner facings and serves three principal functions: 1) Lubricates the facing. This prevents excessive adherence to the glass or plastic finish, which may cause closures to be difficult to remove. 2) Reduces vapor transmission. Many dry products are packaged using liners, which depend on wax entirely as the vapor barrier. 3) Acts as a caulking agent. On widemouth containers, the wax helps to compensate for surface variations in the container finish.

Well Cap
A closure for a container in which there is an interior recessed opening into which an applicator may be affixed.

White Room
A filling or compounding room where extreme measures are taken to assure product cleanliness. Also called clean room.

White Silite
A SANCAP Liner Technology product. A melamine/ureaformaldehyde coating on white paper. White Silite is a bleached Kraft paper coated on one side with a melamine-urea-formaldehyde resin. Color: White. Suggested product uses include cooking oil, food and medicinal syrups, toothpaste, shaving cream, oil of wintergreen, cleaning fluid, household ammonia and liquid starch.

WhiteLined Pulp
White Lined Pulpboard. A backing material to which facings are laminated in the manufacture of duplex liners. It is pulpboard that has a white lining on one side. Pulpboard is made up of virgin and reclaimed fibers. It is available in most thicknesses or specified by the customer.

Wide Mouth
Wide mouth describes any container having an opening roughly half of the diameter of the container to almost the full diameter size of the container.

Wide Mouth Finish
A finish on a container, the diameter of the finish being large relative to the diameter of the body.

Wire Edge
A finish defect. A finish which has excessive glass projecting upward from the inside edge of the finish (similar to an overpress) except that it does not extend above the sealing surface. It is sharp and could chip.

WLP
WLP is a backing material to which facings are laminated in the manufacture of duplex liners. It is pulpboard with a white paper facing and clay coating.

Wrinkle
A general defect. A large fold on the outside of the bottle. Also called "lap".

WVTR
Water vapor transmission rate. The actual rate of water vapor transmission used to compare water vapor barrier, wrapping, or container materials. Usually expressed in grams of water passing through 1 square meter of material in 24 hours at 100 F and 90% relative humidity. Rate may also be expressed in different units as grams per 100 square inches per 24 hours, etc., or under different conditions of temperature and relative humidity.

Letter Y

Yellow Oil 613A
A SANCAP Liner Technology product. An oleoresinous coated natural Kraft paper. Yellow Oil 613A is a multicoat resinous coating on natural Kraft paper. Color: Yellow Mottled Pattern. Suggested product uses include maple syrup, lemon juice, blue cheese dressing, mayonnaise, sauces, salad dressing, auto polish, duplicating fluid, industrial oil, linseed oil, pet products, mineral spirits, motor oil, paint remover, shoe polish, varnish, hydrogen peroxide, paint and stencil ink.

Yellow Silite
A SANCAP Liner Technology product. A melamine/ureaformaldehyde coating on yellow Kraft paper. Yellow Silite is a yellow Kraft paper coated on one side with a melamine-urea-formaldehyde resin blend. Color: Yellow. Suggested product uses include maple syrup, auto polish, duplicating fluid, floor wax, industrial oil, insecticide, lighter fluid, linseed oil, motor oil, paint, paint remover, shoe polish, stencil ink, varnish and turpentine.

Letter num

14-B Wht Rubber
Light colored compound of vulcanized SBR synthetic rubber.

20 PVDCP
A SANCAP Liner Technology product. Saran, clay coated board. 20 PVDCP is a construction of clay coated board and Saran coating (PVDC). Color: White. Suggested product uses include after shave lotion, cold cream, cologne, cough syrup, hand soap, poison ivy lotion, hair shampoo, tincture of iodine, concentrated coffee, corn oil, fruit extract, syrup, vinegar, glass wax and radiator compound.