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[54] FOAMABLE RESINOUS COMPOSITION

[72] Inventors: **Robert P. Cox**, Madison, Wis.; **Leonard A. Fish**, Chicago, Ill.

[73] Assignee: **Wham-O Manufacturing Company**, San Gabriel, Calif.

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[63] Continuation-in-part of Ser. No. 860,854, Sept. 24, 1969, abandoned.

[52] **U.S. Cl.**.....**222/394**, 260/2.5 P, 260/2.5 E, 260/2.5 R, 260/23 R, 260/31.8 H, 260/86.1 E, 260/33.8 UA, 260/89.5 A, 272/1

[51] **Int. Cl.**.....**C08f 47/10**, C08f 29/46

[58] **Field of Search**...260/2.5 E, 2.5 P, 23 R, 23 AC, 260/33.8 UA, 31.8 H; 272/1, DIG. 1; 273/1, DIG. 16; 222/394

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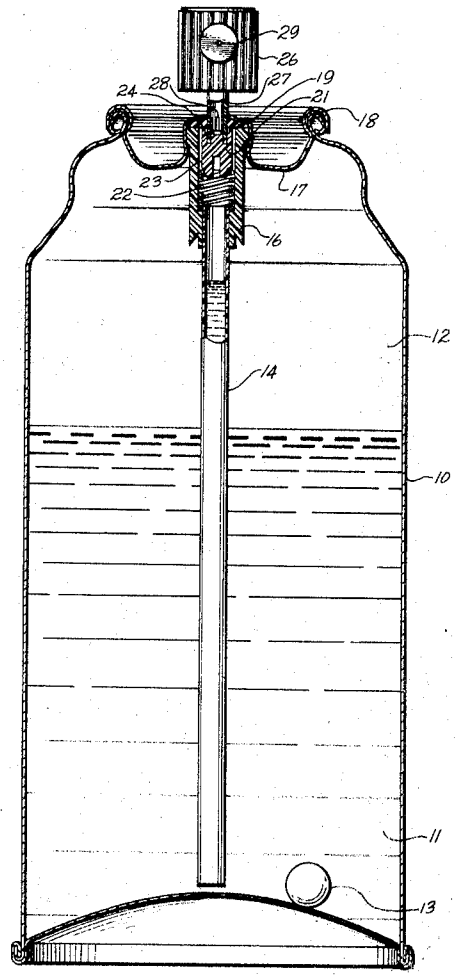
Primary Examiner—Murray Tillman
Assistant Examiner—Wilbert J. Briggs, Sr.
Attorney—Christie, Parker & Hale

[57] **ABSTRACT**

A pressurized or "aerosol" can containing a composition of matter for producing a string of plastic foam is described. The plastic foam produced from the aerosol can is in the form of a cohesive plastic body sufficiently tacky to adhere to inert surfaces such as walls, windows or the like to support the weight of the foam, however, of insufficient tackiness to adhere with a force greater than the cohesive strength of the foam so that the foamed body can be readily removed from surfaces to which it lightly adheres. Such a combination has substantial play and decorative utility.

14 Claims, 1 Drawing Figure



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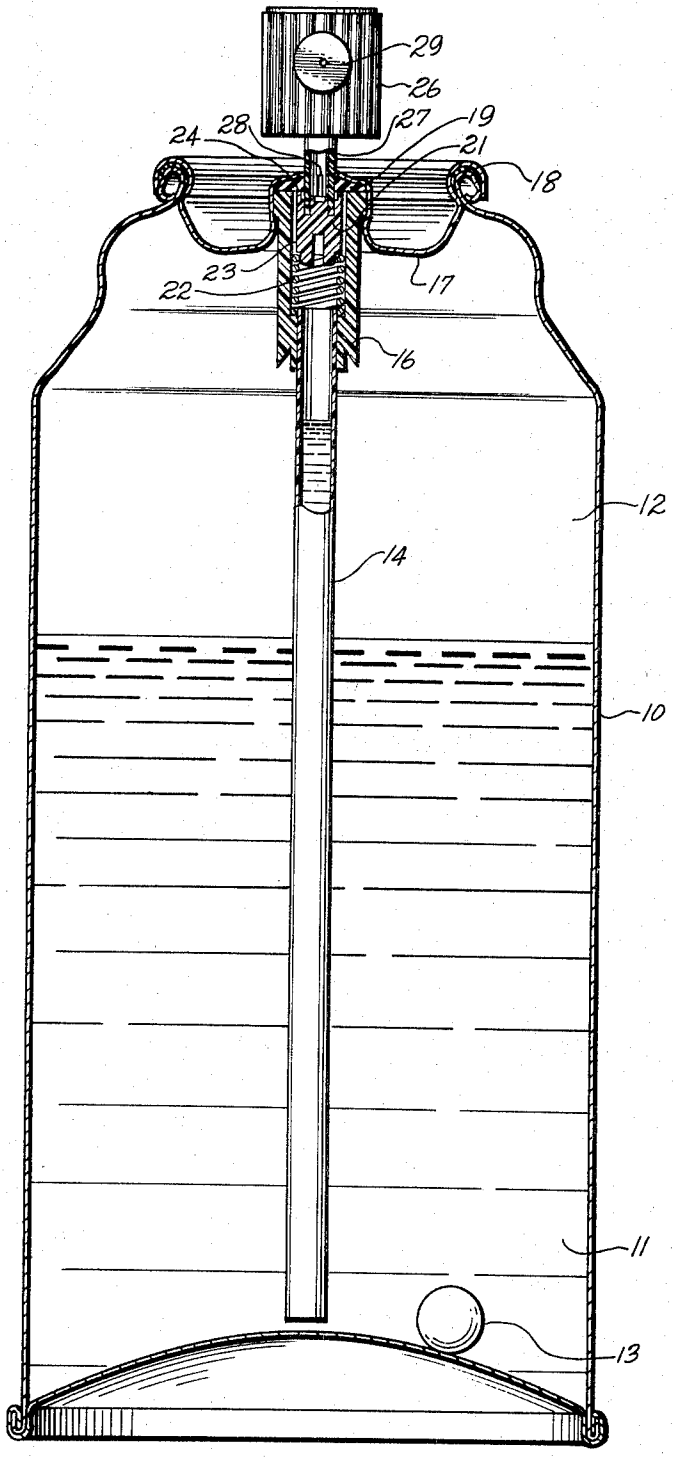

INVENTORS
ROBERT P. COX
LEONARD A. FISH

BY

Christie, Parker & Hale
ATTORNEYS

FOAMABLE RESINOUS COMPOSITION

This is a continuation-in-part of U.S. Pat. application Ser. No. 860,854, filed Sept. 24, 1969 now abandoned.

BACKGROUND

As is well know, children have considerable imagination and virtually any material having a new combination of properties can have substantial play value in their hands. In order to be satisfactory for use by children, the article must be substantially non-toxic and otherwise harmless in the hands of the children, and must be relatively simple to operate.

Thus, a simple, reliable, and safe toy or play article is desirable.

SUMMARY OF THE INVENTION

Thus, in the practice of this invention, according to a preferred embodiment, there is provided a pressurized dispensing container containing a composition comprising a resin for forming a cohesive body of plastic foam, a surfactant for providing a surface of controlled tackiness on the foam and a propellant in which the resin and surfactant are soluble for propelling the composition from the container, and for subsequent expansion to forming the foam.

In particular, in a preferred embodiment the single phase composition comprises from about 11 to 16 percent of polyisobutyl methacrylate and from about 0.5 to 4.0 percent of sorbitan trioleate dissolved in fluorinated hydrocarbon propellant. A plasticizer and a nonvolatile silicone liquid soluble in the propellant may also be included. A pigment and a flame retardant may also be included.

DRAWING

Objects and many of the attendant advantages of this invention will be apparent as the same becomes better understood by reference to the following description when considered in connection with the accompany drawing which illustrates a typical pressurized container containing a composition for forming a foamed plastic string.

DESCRIPTION

The drawing illustrates a typical pressurized container or aerosol can, including a composition incorporating the principles of this invention. As illustrated in this embodiment, there is provided a pressure resistant container **10** such as a conventional aerosol can, a liquid **11**, hereinafter described in greater detail, is contained in the can **10** and the space **12** above the liquid contains evaporated propellant as is conventional in aerosol cans.

If desired, a ball **13** may be inserted in the can **10** so that upon shaking, the liquid in the can is stirred to eliminate any separation of components which may have occurred. In the usual practice of this invention, the ingredients, except for a pigment, are substantially soluble in a propellant and such a ball **13** may not always be required.

A tube **14** extends from the top of the can to a point below the surface level of the liquid **11** near the bottom of the can so that pressure of the propellant in the space **12** can drive liquid **11** through the tube **14** for expulsion from the can in the conventional manner. The tube **14** is press-fitted into a plastic insert **16** fitted within a metal can top **17**. The can top is crimped at its periphery to the top of the can **10** and a soft sealing material **18** is provided within the crimp to prevent gas leakage.

A washer-shaped rubber gasket **19** fits between the insert **16** and the can top **17** for providing a seal. A poppet **21** is fitted for longitudinal motion within the insert **16**, and is urged against the gasket **19** by a spring **22**. Peripheral ribs **23** on the poppet **21** maintain it centered within the bore of the insert **16** and provide a passage for the contents of the can to reach the gasket **19**. A shoulder **24** on the poppet **21** seats against the gasket **19** to prevent the contents of the can from leaking out and act as a valve.

On the top of the can a fingertip actuator **26** has a tubular extension **27** extending through the can top **17** and gasket **19** and fitting within the top of the poppet **21** inwardly of the shoulder **24**. A longitudinal slot **28** in the tubular extension **27** provides fluid communication between the interior of the tube and the space above the poppet inwardly of the shoulder **24**.

As illustrated in the drawing, the can is closed. When the actuator **26** is depressed, the tubular extension **27** presses the poppet **21** downwardly against the spring **22** so that the shoulder **24** leaves engagement with the gasket **19**. This permits liquid **11** from within the can to flow around the poppet adjacent the ribs **23**, through the slot **28** into the tube **27**, which is in fluid communication with a conventional nozzle aperture **29** about 0.014 to 0.018 inch diameter. The liquid within the can extrudes from the nozzle **29** as a fine thread or string of foaming plastic. The composition hereinafter provided has sufficient pressure to propel the string 6 inches or more from the nozzle and can provide more than ½ mile of string.

In a preferred embodiment the composition **11** in the aerosol can comprises a synthetic resin dissolved in a mixture of a solvent and a pressurized gas propellant, plus a plasticizer for the resin. Such a composition is in the form of a substantially single phase liquid for best expulsion from a pressurized can, however, a portion of the ingredients may be in suspension, such as a pigment and a flame retardant.

The combination of ingredients in the composition yields a product having unique properties when expelled from the pressurized container. As the composition is expelled, it remains in the form of a thin string because of the structural properties of the plasticized resin. Because of the very high vapor pressure of the solvent and propellant, a somewhat tough skin quickly forms on the string as these materials evaporate. The resin is still, however, plastically deformable and as the propellant and solvent within the skin vaporize, the string foams and expands to a few times its original diameter. The skin formed is also somewhat elastic so that as the solvent and propellant diffuse through the skin it collapses again to a string having less than its maximum diameter.

As the skin initially forms, there is a degree of tackiness to the surface so that the string will adhere to inert surfaces such as windows, walls, and the like with sufficient adhesion to support the weight of the foamy string. The tackiness of the surface soon disappears and

the string does not thereafter readily adhere to inert surfaces. Once the string has adhered to a surface when the skin is slightly tacky, it remains adhered unless disturbed; however, the degree of adhesion to inert surfaces is appreciably less than the cohesive strength of the string so that the string is readily manually peeled from the surfaces. Since substantially nonvolatile plasticizers and silicone fluids are employed in the composition, it remains quite plastic and readily deformable for a substantial period of time after ejection from the can. The period over which substantial plasticity and adhesion are retained is in the order of several weeks or longer.

In order to obtain this unique combination of properties, a combination of ingredients is employed in the composition. The principal structural strength of the composition after foaming is provided by a synthetic resin which is preferably poly-isobutyl methacrylate. The isobutyl methacrylate has four carbon atoms in the side radical and compositions having other alkyl methacrylates having from three to eight carbon atoms in the radical may be substituted in part for the isobutyl methacrylate. Thus, for example, a 50—50 copolymer of n-butyl methacrylate and isobutyl methacrylate has been found to be suitable.

Other methacrylate resins that may form strings of appropriate tackiness include polyisopropyl methacrylate, polyisopentyl methacrylate, polyisohexyl methacrylate, polyisoheptyl methacrylate and polyisooctyl methacrylate. Greater or lesser amounts of plasticizer than the preferred quantity hereinafter described may be employed with these resins to provide a balance of cohesive strength and surface tackiness, the exact quantity required being a function of the inherent properties of the unmodified resins in the aerosol propellant, and readily determined empirically. The isobutyl methacrylate is preferred since it has an optimum combination of cohesion, tackiness and adhesion when employed in combination with the other preferred ingredients. With a suitable combination of other materials, particularly solvent, other resins such as polyvinyl pyrrilidone, polyvinyl acetate-butyrate, and polyvinyl butyral may be employed.

It is preferred that the resin be present in the composition in the pressurized container in the range of from about 10 to 16 percent by weight. It is found that if the quantity of resin is less than about 10 percent by weight that a foamy liquid is obtained upon ejection from the can and the liquid is not suitable for forming a foamy string having appreciable initial cohesion. It is also found that if the quantity of resin is higher than about 16 percent by weight, the composition is too viscous for conventional aerosol can nozzles and foamy strings are not readily prepared.

It is particularly preferred that the resin be polyisobutyl methacrylate in the proportion of 12.2 percent by weight since such a composition is found to flow freely through conventional aerosol can nozzles to form a foamy string having good structural strength and a proper degree of adhesion to inert surfaces. A second preferred composition has about 11.4 percent by weight of polyisobutyl methacrylate. Compositions with higher proportions of resin form strings that are less foamy, and compositions with lower concentrations of resin form weaker strings prior to evaporation of all of the solvent and propellant.

A preferred propellant for the composition in the pressurized container is dichlorodifluoromethane. This material is commercially available as Freon-12 or Genetron-12. The Freon-12 can be mixed with other related compounds to obtain a desired pressure in the aerosol container as is well known. The propellant in the composition does more than just eject the liquid from the pressurized container. In addition, the resin and other ingredients hereinafter described preferably have substantial solubility in the propellant so that foaming of the resin occurs as the material is ejected from the container.

The quantity of propellant employed is the balance of the composition when all of the other ingredients are accounted for. It is particularly preferred, however, that the composition include about 75 percent by weight of Freon-12 in order to provide good foaming action and ejection from the container under a broad range of conditions.

In addition to the principal propellant employed, it is often desirable to employ an additional solvent for the resin that is miscible with the propellant to form a substantially one-phase composition, that is, only a minor amount of the ingredients is in suspension in the liquid. The solvent also serves to reduce the pressure in the container, and also the rate of evaporation from the foamed string so that adhesion remains for a short time and foaming action continues for a time interval after the string has been ejected from the container. A number of organic solvents miscible with the propellant in which the resin is soluble may be employed, such as methylene chloride, carbon tetrachloride, dichloropheptafluoroethane, difluorochloroethane, tetrafluorodichloroethane or difluoroethane.

When using polyisobutyl methacrylate as the resin, it is particularly preferred, however, that the solvent be trichloromonofluoromethane which is commercially available as Freon-11. This material is particularly suited since it is readily miscible with the Freon-12 and forms an excellent solvent for isobutyl methacrylate, and further has sufficient vapor pressure to aid the foaming action of the string after it is ejected from the container. The quantity of solvent employed can vary up to about 25 percent by weight of the total composition, however if greater quantity of solvent is employed, the vapor pressure of the combined solvent and propellant is reduced and poor foaming action is obtained. If no solvent with the propellant is employed, the surface of the string dries or skins over rapidly and adhesion to inert surfaces is decreased. In the absence of any solvent in addition to the propellant, string forming and foaming do occur in a satisfactory manner, however, the full ability to adhere the string to inert surfaces like windows is noticeably degraded.

It is particularly preferred that the solvent employed be Freon-11 or trichloromonofluoromethane in a proportion of about 6.6 percent by weight. In a second preferred composition Freon-11 is present in a proportion of about 3.75 percent by weight. It is found that these compositions give an optimum foaming action and sufficient temporary tackiness that the string will adhere to most inert surfaces for the time interval required to give the pressurized can of composition a superior play and decorative value.

A particularly significant component of the composition is a surface active agent or surfactant in the com-

bination of propellant, solvent and resin. It will be readily appreciated by one skilled in the art that a number of surface active agents are commercially available and may be employed in the practice of this invention. It is preferred that the surface active agent be one having a very low hydrophile-lipophile balance (HLB) and acts as a foaming agent. The hydrophile-lipophile balance is a measure of the relative efficacy of the surfactant in water base mixtures and oil base mixtures, i.e., related to the polarity of the liquid. A surfactant with a low HLB is usually employed for oil base mixtures and one with a high HLB is preferable for water base mixtures. By blending different compounds a range of HLB values can be obtained in a surfactant. It is preferred that the HLB of surfactant employed in practice of this invention be less than about 3.0 to obtain the desired balance of foaming, cohesive strength, and adhesion in the foamed string.

A particularly suitable surface active agent has been found to be sorbitan trioleate which has a hydrophile-lipophile balance of about 1.8. It is also preferred that the surface active agent be present in the range of about 0.5 to 4.0 percent by weight of the composition in the container. When the surface active agent is present in a proportion less than about 0.5 percent by weight, the composition is ejected from a container as a foamy liquid with insufficient cell stability to form a good string. When the surface active agent is present in a proportion greater than about 4.0 percent by weight, the strength is quite stable, however, it remains too tacky and adheres too well and too long to inert surfaces to make a satisfactory play article. Of course, if it is desired for decorative purposes to have adhesion, a higher quantity of surfactant may be used.

It is particularly preferred that the surfactant be sorbitan trioleate in a proportion of 2.5 percent by weight of the composition in the container. In a second preferred embodiment the sorbitan trioleate is present at 3.3 percent by weight. At these compositions, the string is found to have just the proper tackiness for adhesion to inert surfaces and also the resultant string has the proper structural strength and cell wall stability to maintain its own weight when initially applied and has sufficient cohesive strength relative to its adhesion to other surfaces so that it can be readily peeled therefrom after use.

It is also desirable to employ a substantially nonvolatile silicone liquid such as dimethyl siloxane, methyl phenyl siloxane, or the like in the composition. The silicone fluid is employed as a release or parting agent so that the foamy string is more readily removed from inert surfaces such as walls or the like. It is preferred that the silicone fluid be present in a proportion up to about 0.7 percent by weight of the composition in the container since increased quantities above that amount do not have a significant effect on the ability to strip the string from the surface. This is thought to be due to the fact that only a certain quantity of the silicone can actually be at the surface of the string and higher quantities in the bulk of the foam do not make any significant difference.

If no silicone fluid at all is employed, a foam is still obtained in the form of a string that can be removed from inert surfaces. It is found, however, that the foam is more readily removed with the silicone present. Thus, the silicone serves to reduce the adhesion of the foam string to an inert surface without substantially affecting the cohesive strength of the resin. It is particularly preferred that the nonvolatile silicone liquid be present in the proportion of about 0.35 percent by weight since this proportion is found to give an adequate ability to remove the string from a surface and there is no substantial need to go to higher proportions of this relatively more expensive component.

Another ingredient in the preferred composition in the container is a plasticizer, tackifier or flexibilizer for the resin to obtain a desired balance between adhesiveness to an inert surface and cohesion and plasticity of the resin. A large number of conventional plasticizers for synthetic resin are known and commercially available. It is preferred that the plasticizer be present in the composition in the container in the range up to about 5.0 percent by weight. The quantity of plasticizer in the composition is varied somewhat dependent on the properties of the resin. Thus, for example, with polyisobutyl methacrylate resin it is preferred to employ above about 0.1 percent by weight of plasticizer and with a copolymer of n-butyl methacrylate and isobutyl methacrylate a satisfactory string can be formed with no added plasticizer as a separate ingredient since the plasticizing function is inherent in the resin. If the plasticizer is present in too small a proportion for a selected resin, the foam may not be structurally sound and it will collapse into a powder under relatively small forces. In this condition it cannot be readily stripped from a surface since it has inadequate cohesion and low plasticity. On the other hand, if the quantity of plasticizer is greater than about 5.0 percent by weight, the string resulting from ejecting the composition from the container is quite tacky and is generally considered too sticky for a satisfactory play article since it will stick persistently to some surfaces.

It is particularly preferred that the plasticizer be dibutyl phthalate in the proportion of about 0.5 percent by weight of the composition in the container. It is found that this proportion of dibutyl phthalate produces a string having good cohesion and plasticity and adequate tackiness without being too tacky. In a second preferred embodiment a plasticizer of about 1.0 percent by weight of dimethyl chlorendate is added. This material, which is the dimethyl ester of chlorendic acid, is a nonflammable plasticizer and is preferred from this viewpoint. A preferred upper limit for this plasticizer is about 2 percent since the string may be unduly tacky for optimum play value if more employed.

In order to enhance the play and decorative value of the composition in the pressurized can, a pigment or dye may be added to produce strings in various colors. It is preferred that a pigment be employed since dyes may bleed from the string and cause stains. The presence of a surfactant adequately maintains the pigments in suspension. In a particularly preferred composition about 2 to 3 percent by weight of pigment is employed in the composition in the container since this is adequate for decorative effect and does not degrade properties of the string. It should be apparent to one skilled in the art that a significant variation in the concentration of dye or pigment can be made since this material is substantially inert as far as the structural properties of the string are concerned until sufficient

dry pigment is added to make the composition too viscous, or the extruded foam thread too brittle. The pigment normally has little, if any, effect on either adhesion or cohesion of the string. It should also be apparent that the pigments employed may be either visible pigments or fluorescent pigments as may be desired. A white product is produced if all visible pigments are omitted. A product having a particular decorative effect is obtained by employing aluminum powder in the composition since a silvery tinsel-like string is formed. It will also be apparent that if desired perfumes or other odors may be incorporated in the composition.

Although the foam string does not have significant flammability, flame resistance can be further reduced if desired by adding a few percent of finely divided flame retardant. The string as it comes from the can is virtually nonflammable because of the continued presence of halogenated propellant which has not yet evaporated. After the string is dried, it may burn unless a flame retardant is included in the composition.

A particularly preferred flame retardant is hexabromobenzene in the form of a finely divided powder which can be added to the composition in any proportion up to the point where the string becomes dry and crumbly due to an excess of the essentially inert powder. It is particularly preferred that the hexabromobenzene be present in a proportion greater than about 4 percent by weight in order to obtain a practical level of nonflammability. In one test of flammability, a string of plastic foam is permitted to dry and suspended from one end in a vertical direction. A match held to the lower end may cause a flammable string to burn. A nonflammable string does not propagate the flame up the string and is self extinguishing when the flame is removed. When the hexabromobenzene is present in less than about 4 percent, the string may burn slowly. When the hexabromobenzene is present in a proportion greater than about 4 percent by weight, the string is essentially nonflammable.

It is particularly preferred to employ a hexabromobenzene concentration of about 5.6 percent by weight in order to achieve substantially complete nonflammability without unduly drying the string. Hexabromobenzene in this concentration is preferred since it provides nonflammability and is nontoxic. The proportion of hexabromobenzene can be varied somewhat depending on the particle size and it is particularly preferred that a small particle size in the order of only a few microns be employed since low concentrations provide significant flame retarding and are more readily dispersed the liquid composition for preventing segregation and clogging of the fine nozzle orifice.

Other flame retardant materials can also be employed in the composition if desired. Other compositions that are substantially insoluble in the liquid composition include sodium bicarbonate, antimony trioxide, and hexabromocyclododecane. These latter two materials are considered toxic and are not suitable for some applications. Other suitable flame retardants include tris-2,chloroethyl phosphate, tris-dibromopropyl phosphate, and tris-dichloropropyl phosphate. These latter three flame retardants are soluble in the liquid composition and if used are employed in lieu of other plasticizer in the composition. Excess amounts of any of these latter fire retardants will over-flexibilize the strings and make them too tacky.

In a particular example of application of the principles of this invention, a conventional aerosol can had 12 grams of isobutyl methacrylate and 2 grams of pigment placed therein. Thereafter 14 ml. of a premixed solution was added to the can. The premixed solution was formed of 48.6 percent by volume of Freon-11, 2.8 percent of silicone liquid (viscosity 65 centistokes), 20.8 percent of sorbitan trioleate, and 27.8 percent of dibutyl phthalate. The can was then closed and pressurized with 50 ml. of Freon-12. This composition in a pressurized container is sufficient for forming a great length of foamed string (over ½ mile) having sufficient adhesion to support its own weight when adhered to inert surfaces such as windows and the like and a sufficient cohesiveness and plasticity to be readily removed from such surfaces merely by grasping an end of the string and pulling away from the surface.

In a preferred example of a composition useful in practice of this invention, aerosol cans may be charged with 12.20 percent of polyisobutyl methacrylate, 2.49 percent of sorbitan trioleate, 0.44 percent of dibutyl phthalate, 0.35 percent of silicone liquid, 2.07 percent of pigments, 6.60 percent of trichloromonofluoromethane and the balance or 75.85 percent of dichlorodifluoromethane, all percentages being by weight. Such an aerosol can is found to be highly entertaining and strings of good strength and plasticity are obtained with a proper tackiness and limited adhesion.

In another preferred example of composition useful in practice of this invention, aerosol cans may be charged with about 11.4 percent of polyisobutylmethacrylate, about 3.3 percent of sorbitan trioleate, about 1.0 percent of dimethyl chlorendate, about 2.8 percent of pigments, about 5.6 percent of hexabromobenzene, about 3.75 percent of trichloromonofluoromethane, and a balance of about 72 percent of dichlorodifluoromethane, all percentages being by weight. An aerosol can filled with this composition is found to be highly entertaining, and strings of good strength, plasticity, and nonflammability are obtained with proper tackiness and limited adhesion so that the final string temporarily adheres to inert surfaces and is readily stripped therefrom.

In still another example the composition charged was substantially the same except the quantities of sorbitan trioleate and trichloromonofluoromethane were approximately half of that set forth in the first example, and good strings were obtained. In one satisfactory composition the quantities of resin, pigment, silicone liquid, and surfactant were about the same as in the example of the preceding paragraph and the quantities of trichloromonofluoromethane and dibutyl phthalate were increased to about 9.9 percent and 4.35 percent, respectively, with the propellant proportionately reduced.

Another satisfactory example employs about 12.2 percent by weight of a 50—50 copolymer of n-butyl methacrylate and isobutyl methacrylate, about 2 percent of pigment, about 6.6 percent of Freon-11, about 0.4 percent of silicone liquid, about 2.5 percent of sorbitan trioleate, and a balance of Freon-12.

Although only a few specific examples have been given of aerosol containers filled with compositions according to the principles of this invention, it will be readily appreciated by one skilled in the art that many modifications and variations of the present invention can be made.

What is claimed is:

1. A toy or decorative combination comprising:
a pressurized container;
from about 10 to 16 percent by weight of an alkyl methacrylate resin in the container, said resin having from three to eight carbon atoms in the attached radical;
sufficient plasticizer dissolved in said alkyl methacrylate resin for plasticizing the alkyl methacrylate resin and maintaining its cohesion and making the surface sufficiently tacky to adhere to an inert surface with an adhesion less than its cohesion;
sorbitan trioleate in said alkyl methacrylate resin in the range of from about 0.5 to 4.0 percent by weight of the total composition; and
sufficient fluorinated hydrocarbon propellant for ejecting the composition from the pressurized container, the propellant being substantially miscible with the alkyl methacrylate resin, the plasticizer, and the surfactant in the composition for ejecting the composition from the pressurized container as a foamed plastic string having sufficient surface tackiness to adhere to an inert surface with an adhesion less than the cohesive strength of the body of foam.

2. A toy or decorative combination as defined in claim 1 further comprising:
up to about 0.7 percent by weight of a substantially nonvolatile silicone liquid soluble in the composition; and
up to about 25 percent by weight of a solvent for the alkyl methacrylate resin that is miscible with the propellant.

3. A toy or decorative combination as defined in claim 2 further comprising more than about 4 percent by weight of hexabromobenzene.

4. A composition consisting essentially of:
from 10 to 16 percent by weight of a resin selected from the group consisting of polyisobutyl methacrylate, copolymers of n-butyl methacrylate and isobutyl methacrylate, polyisopropyl methacrylate, polyisopentyl methacrylate, polyisohexyl methacrylate, polyisoheptyl methacrylate, and polyiso-octyl methacrylate;
from 0.5 to 4.0 percent by weight of sorbitan trioleate;
from 0.1 to 5.0 percent by weight of plasticizer for the resin; and
fluorinated hydrocarbon propellant for ejecting the composition from a pressurized container as the principal balance of the composition.

5. A composition as defined in claim 4 wherein the fluorinated hydrocarbon comprises up to about 25 percent by weight of trichloromonofluoromethane; and
the balance is principally dichlorodifluoromethane.

6. A composition as defined in claim 5 wherein the plasticizer is selected from the group consisting of dibutyl phthalate and dimethyl chlorendate.

7. A composition consisting essentially of:
from 10 to 16 percent by weight of a resin selected from the group consisting of polyisobutyl methacrylate, and copolymers of isobutyl methacrylate and n-butyl methacrylate;
from 0.5 to 4.0 percent by weight of sorbitan trioleate;
from 0.5 to 5.0 percent by weight of plasticizer for the resin, selected from the group consisting of dibutyl phthalate and dimethyl chlorendate; and
fluorinated hydrocarbon propellant for ejecting the composition from a pressurized container as the principal balance of the composition, wherein the fluorinated hydrocarbon comprises up to about 25 percent by weight of trichloromonofluoromethane; and
the balance is principally dichlorodifluoromethane.

8. A composition as defined in claim 4 further comprising more than about 4 percent by weight of hexabromobenzene.

9. A toy or decorative combination as defined in claim 1, wherein
the plasticizer is present in the proportion of about 0.1 to 5.0 percent by weight of the composition; and
the propellant comprises up to about 25 percent by weight of trichloromonofluoromethane and a balance of principally dichlorodifluoromethane.

10. A toy or decorative article comprising:
a pressure resistant container;
valve means for controlling flow from the container;
a composition in the container comprising:
from about 10 to 16 percent by weight of methacrylate resin for forming a cohesive body of plastic foam after ejection from the container, selected from the group consisting of polyisobutyl methacrylate, and copolymers of n-butyl methacrylate and isobutyl methacrylate,
from about 0.1 to 5.0 percent by weight of plasticizer means for assuring plasticity of the body of foam, selected from the group consisting of dibutyl phthalate, dimethyl chloroendate;
from about 0.5 to 4.0 percent by weight of sorbitan trioleate for controlling tackiness of the body of foam, and
propellant means comprising up to about 25 percent by weight of trichloromonofluoromethane and a balance of principally dichlorodifluoromethane for ejecting the composition from the container, said resin, plasticizer, and sorbitan trioleate being substantially soluble in the propellant; and nozzle means for ejecting the composition from the container as an elongated string of plastic foam.

11. An article as defined in claim 10 further comprising up to about 0.7 percent by weight of substantially nonvolatile silicone liquid in the composition.

12. An article as defined in claim 10 further comprising more than about 4 percent by weight of hexabromobenzene.

13. A toy or decorative article comprising:
a pressure resistant container;
valve means for controlling ejection of material from the container;
nozzle means for ejecting material from the container as an elongated body; and

a composition in the container for forming an elongated string of plastic foam sufficiently tacky to support the weight of said body and less than sufficiently tacky to have an adhesion to an inert surface greater than the cohesion of the body of foam, said composition consisting essentially of;
about 12.2 percent by weight of polyisobutyl methacrylate;
about 2.5 percent by weight of sorbitan trioleate;
about 0.44 percent by weight of dibutyl phthalate;
about 0.35 percent by weight of silicone liquid;
a sufficient quantity of pigment to enhance a decorative effect;
about 6.60 percent by weight of trichloromonofluoromethane; and
a balance of dichlorodifluoromethane.

14. A toy or decorative article comprising:
a pressure resistant container;
valve means for controlling ejection of material from the container;
nozzle means for ejecting material from the container as an elongated body; and
a composition in the container for forming an elongated string of plastic foam sufficiently tacky to support the weight of said body and less than sufficiently tacky to have an adhesion to an inert surface greater than the cohesion of the body of foam, said composition consisting essentially of;
about 11.4 percent by weight of polyisobutyl methacrylate;
about 3.3 percent by weight of sorbitan trioleate;
about 1.0 percent by weight of dimethyl chlorendate;
about 5.6 percent by weight of hexabromobenzene;
a sufficient quantity of pigment to enhance a decorative effect;
about 3.75 percent by weight of trichloromonofluoromethane; and
a balance of dichlorodifluoromethane.

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