

UNITED STATES PATENT OFFICE

1,986,243

POLISH

Maurice H. Arveson, Hammond, Ind., assignor to
Standard Oil Company, Whiting, Ind., a cor-
poration of Indiana

No Drawing. Application February 6, 1931,
Serial No. 514,067

3 Claims. (Cl. 134—24)

The present invention relates to an emulsified, neutral, non-saponaceous cleaning and polishing composition for painted, enameled, varnished and lacquered surfaces, and the like. The composition of the present invention is particularly adapted for use in connection with the finished surfaces of automobiles and furniture.

The polish and cleaner of the present invention comprises an aqueous, non-saponaceous emulsion of a non-volatile mineral oil, a suitable cleaning material having mild abrasive properties, and a preservative. The non-volatile mineral oil comprises any light mineral oil of the character of white oil, mineral seal oil, or the like. For example, a blend of about 2 parts white oil having a viscosity of from 50 to 65 seconds Saybolt at 100° F., with one part mineral seal oil having a viscosity of from 45 to 50 seconds Saybolt at 100° F. has been found to provide a very satisfactory oil for my composition. The oil may be employed in amounts of from 10 to 50% based on the weight of the finished product. As the emulsifying agent, it is preferred to employ gum tragacanth. I have found that gum tragacanth is the most satisfactory gum emulsifying agent in that it forms very stable emulsions and it is particularly advantageous in that the polishes made with it do not tend to streak or blur the finished surfaces to which the composition is applied. The emulsifying agent may be employed in amounts varying from 0.2% to 3% relative to the weight of the total composition. The cleansing material may comprise any mild abrasive, such as diatomaceous earth, colloidal clay, or the like. "Snow floss", which is a very fine grade of diatomaceous earth, has been found to be extremely satisfactory and may be employed in amounts varying from 0.50 to 10% relative to the weight of the finished product, the amount varying, of course, with the particular use the polish composition is to be put. The amount of water employed may vary within a wide range of proportions, for example between 40 and 80% relative to the weight of the composition.

Since the composition is neutral (non-acid and non-basic) a preservative must be employed to prevent bacterial contamination which would result in decomposition of the product. The preservative should be non-poisonous and in general unharmed to the human skin in the amounts necessary for use, since it must necessarily come in contact with the hands of the user. I have found formalin (formaldehyde) to be the most satisfactory preservative for preventing such decomposition. The amount of formalin may vary, depending mainly upon the initial purity of the various ingredients. For example, formaldehyde, of 40% concentration, may be employed in proportions of from 0.2 to 2% of the aqueous phase. It is preferred to employ a small amount of

glycerine in the polish to prevent it from drying to the extent that it is difficult to remove or spread, in case it has been permitted to remain on the finished surface for a substantial period of time. The amount of glycerine ordinarily will vary from 1 to 10% relative to the weight of the composition. A small amount, i. e., from 0.1 to 1%, of oil of lemon grass, or any other suitable perfuming agent, may be added to the composition.

The polish and cleaner of the present invention is preferably formed as follows: Gum tragacanth is dissolved in water and the solution is passed with the mineral oil through a colloid mill until complete emulsification is effected. The abrasive, preferably snow floss, the preservative (preferably formalin), glycerine and the perfuming agent (oil of lemon grass) are then added to the emulsion and are thoroughly admixed therewith. The composition has been found to be very stable, and after prolonged standing no abrasive settles to the bottom of the mixture nor does any clear oil separate out on the surface. A portion of the water, however, may separate below the dispersed oil, but the abrasive is held in suspension in the dispersed oil layer and the whole can be easily remixed by shaking or stirring.

A satisfactory automobile polish was obtained by employing the following proportions of ingredients:

	% by weight
White oil (50-65 sec. Saybolt at 100° F.)	16.3
Mineral seal oil	8.2
Water	66.14
Glycerine (commercial)	3.15
Formaldehyde (40%)	0.50
Gum tragacanth	.41
Snow floss	4.8
Oil lemon grass	0.5

A satisfactory furniture polish was obtained by employing the following proportions of ingredients.

	% by weight
White oil (50-65 sec. Saybolt at 100° F.)	17.00
Mineral seal oil	8.20
Water	69.00
Glycerine (commercial)	3.28
Gum tragacanth	0.42
Snow floss	1.04
Oil lemon grass	0.50
Formaldehyde (40%)	0.56

The proportion of ingredients set forth in the above two examples represent the preferred embodiments of my invention. However, as indicated hereinbefore the proportion of ingredients may be varied somewhat, for example, the portion of oil may also vary from 20 to 30%, the proportion of water may vary from 65 to 70% and the proportion of glycerine may vary from 3 to 3.5%.

The above polishes were found to be extremely stable and no bacterial decomposition took place on storage. The polishes not only imparted a brilliant luster to finished surfaces, but functioned to clean the surfaces as well as polish them. The polish had no perceptible deleterious effects on the human skin. The polish, being neutral, does not have any deleterious effects upon coating compositions affected by acid or basic substances.

Although my invention has been hereinbefore described in connection with specific examples of its application, it is not intended that the details presented are to be regarded as limitations upon the scope of the invention, except in so far as included in the accompanying claims.

I claim:

1. An emulsified, neutral, non-saponaceous cleaning and polishing composition comprising from 24 to 26% of a non-volatile mineral oil having a viscosity of the order of 50 seconds

Saybolt at 100° F., 65 to 70% of water, 0.3 to 0.45% of gum tragacanth, 1 to 5% of a mild abrasive, and about 3.2% of glycerin.

2. An emulsified, neutral, non-saponaceous cleaning and polishing composition consisting of the following ingredients in substantially the proportions set forth; 24.6% of a mineral oil having a viscosity from 45 to 65 seconds Saybolt at 100° F., about 66% water, 3.2% glycerine, 0.5% of a 40% solution of formaldehyde, 0.42% gum tragacanth, and 5% of a mild abrasive.

3. An emulsified, neutral, non-saponaceous cleaning and polishing composition comprising essentially from 30 to 20% of a non-volatile mineral oil having a viscosity of from 50 to 65 seconds Saybolt at 100° F., from 65 to 70% of water, from 0.2 to 3% of gum tragacanth, from 1 to 10% of a mild abrasive, from 3 to 3.5% of glycerine, and formaldehyde in an amount sufficient to prevent bacterial decomposition.

MAURICE H. ARVESON.