PATENT SPECIFICATION

Application Date: Oct. 22, 1936. No. 28735/36.
Complete Specification Left: July 13, 1937.
Complete Specification Accepted: Dec. 1, 1937.

476,073

PROVISIONAL SPECIFICATION

Improvements in and relating to the Concentration of Latex

We, RUBBER PRODUCERS RESEARCH ASSOCIATION, of 19, Fenchurch Street, London, E.C.3, a Body Corporate duly organised under the Laws of Great Britain, do hereby declare the nature of this invention (a communication from Edgar Rhodes and Chandra Sekaran, both British Subjects, and both of Rubber Research Institute of Malaya, of Kuala Lumpur, Federated Malay States), to be as follows:—

This invention relates to the concentration of latex by creaming and has more especial reference to processes wherein creaming agents are added to the rubber latex to accelerate creaming and obtain a stable cream rich in rubber.

Processes for the concentration of latex by creaming according to the present invention involve the presence as creaming agents of water soluble derivatives of the fatty alcohols containing between 6 and 18 carbon atoms per molecule, for instance the sodium sulphonate of the mixed alcohols obtained by the hydrogenation of coconut oil or sulphonated lauryl alcohol.

The latex subjected to the creaming process may be fresh or preserved and it has been found that after a short period of creaming, a stable thick and pasty cream of high dry rubber content is obtained without it being necessary to add ammonia or other stabiliser and in fact of such stability as to be coagulable with acid only under the utmost difficulty.

In a specific example of one mode of carrying out the process according to the invention 100 ccs. of fresh latex having a D.R.C. of 34.7% are mixed with 10 gms. of sulphonated lauryl alcohol as sold under the Registered Trade Mark "Lorol" dissolved in 10 cc. of water and 100 ccs. of the mixture set up for creaming, the serum level being noted at intervals. After three days the separation line between cream and serum remains stationary and 56 ccs. of serum can be run off.

The residual cream has the following composition:—

Total solids - -	70.3% by weight
Dry rubber content by alcohol coagulation - - -	65.1% by weight

and is in the form of a thick paste of extreme stability on the hand rubbing criterion since it requires to be rubbed into a very thin film before coagulation takes place.

It will be understood that the invention is not limited by the foregoing example and comprehends processes for the concentration of latex by the addition of creaming agents of the range aforementioned in the presence or not of alkaline or colloidal stabilisers, to give stable creams rich in dry rubber content without resort to expensive plant and procedure.

Dated this 22nd day of October, 1936.
O'DONNELL, LIVSEY & Co.,
Chartered Patent Agents,
47, Victoria Street, Westminster,
London, S.W.1,
Agents for Applicants.

COMPLETE SPECIFICATION

Improvements in and relating to the Concentration of Latex

We, RUBBER PRODUCERS RESEARCH ASSOCIATION, of 19, Fenchurch Street, London, E.C.3, a Body Corporate duly organised under the Laws of Great Britain, do hereby declare the nature of this invention (a communication from Edgar Rhodes and Chandra Sekaran, both British Subjects, and both of Rubber Research Institute of Malaya, of Kuala Lumpur, Federated Malay States), and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to the concentration of latex by creaming and has more especial reference to processes wherein creaming agents are added to the rubber latex to accelerate creaming and obtain a stable cream rich in rubber.

Processes for the concentration of latex by creaming according to the present invention involve the presence as creaming agents of water soluble derivatives of the fatty alcohols containing between 6 and 18 carbon atoms per molecule, for instance the sodium sulphonate of the mixed alcohols obtained by the hydrogenation of coconut oil or sulphonated lauryl alcohol.

The latex subjected to the creaming process may be fresh or preserved and it has been found that after a short period of creaming, a stable thick and pasty cream of high dry rubber content is obtained without it being necessary to add ammonia or other stabiliser and in fact of such stability as to be coagulable with acid only under the utmost difficulty.

In a specific example of one mode of carrying out the process according to the invention 100 ccs. of fresh latex having a D.R.C. of 34.7% are mixed with 10 gms. of the sodium salt of the sulphonated alcohols derived from the hydrogenation of coconut oil, and of which the chief constituent is lauryl alcohol, as sold under the Registered Trade Mark "Sulphonated Lorol" dissolved in 10 cc. of water. 100 ccs. of the mixture are set up for creaming, the serum level being noted at intervals. After three days the separation line between cream and serum remains stationary, and 56 ccs. of serum can be run off.

The residual cream has the following composition:—

Total solids - -	70.3% by weight
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and is in the form of a thick paste of extreme stability on the hand rubbing criterion since it requires to be rubbed into a very thin film before coagulation takes place.

It will be understood that the invention is not limited by the foregoing example and comprehends processes for the concentration of latex by the addition of creaming agents of the range aforementioned with or without other agents such as carob seed gum according to our Patent No. 430,935, in the presence or not of alkaline or colloidal stabilisers, to give stable creams rich in dry rubber content without resort to expensive plant and procedure.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A process for the concentration of rubber latex by creaming involving the presence as creaming agent of a water soluble derivative, or water soluble derivatives, of fatty alcohols containing between 6 and 18 carbon atoms per molecule.

2. A process for the concentration of rubber latex by creaming, according to Claim 1, wherein the creaming agent comprises sulphonated lauryl alcohol.

3. A process for the concentration of rubber latex by creaming, according to Claim 1, wherein the creaming agent comprises the sodium salt of the sulphonated alcohols obtained by the hydrogenation of coconut oil.

4. A process for the concentration of rubber latex by creaming, according to any of the preceding claims, substantially as described.

5. Stable latex pastes when prepared by the creaming processes according to any of the preceding claims.

Dated this 10th day of July, 1937.
O'DONNELL, LIVSEY & Co.,
Chartered Patent Agents,
47, Victoria Street, Westminster,
London, S.W.1,
Agents for Applicants.

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Processes for the concentration of latex by creaming according to the present invention involve the presence as creaming agents of water soluble derivatives of the fatty alcohols containing between 6 and 18 carbon atoms per molecule, for instance the sodium sulphonate of the mixed alcohols obtained by the hydrogenation of coconut oil or sulphonated lauryl alcohol.

The latex subjected to the creaming process may be fresh or preserved and it has been found that after a short period of creaming, a stable thick and pasty cream of high dry rubber content is obtained without it being necessary to add ammonia or other stabiliser and in fact of such stability as to be coagulable with acid only under the utmost difficulty.

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It will be understood that the invention is not limited by the foregoing example and comprehends processes for the concentration of latex by the addition of creaming agents of the range aforementioned with or without other agents such as carob seed gum according to our Patent No. 430,935, in the presence or not of alkaline or colloidal stabilisers, to give stable creams rich in dry rubber content without resort to expensive plant and procedure.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A process for the concentration of rubber latex by creaming involving the presence as creaming agent of a water soluble derivative, or water soluble derivatives, of fatty alcohols containing between 6 and 18 carbon atoms per molecule.

2. A process for the concentration of rubber latex by creaming, according to Claim 1, wherein the creaming agent comprises sulphonated lauryl alcohol.

3. A process for the concentration of rubber latex by creaming, according to Claim 1, wherein the creaming agent comprises the sodium salt of the sulphonated alcohols obtained by the hydrogenation of coconut oil.

4. A process for the concentration of rubber latex by creaming, according to any of the preceding claims, substantially as described.

5. Stable latex pastes when prepared by the creaming processes according to any of the preceding claims.

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