



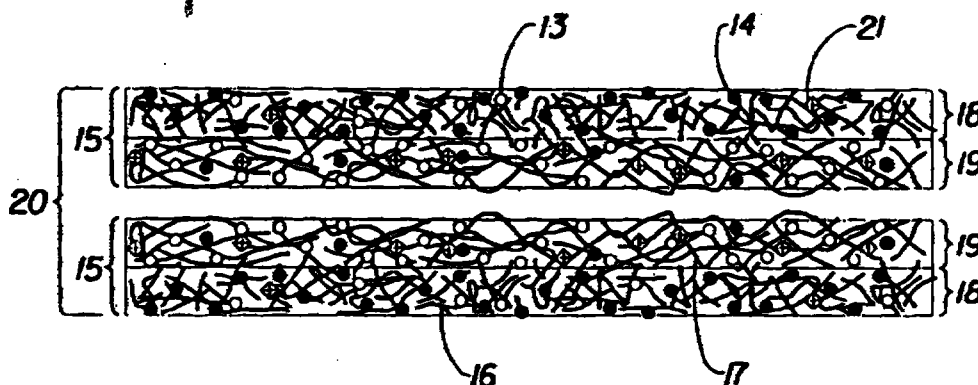
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(54) Title: MULTI-PLY FACIAL TISSUE PAPER PRODUCT COMPRISING CHEMICAL SOFTENING COMPOSITIONS AND BINDER MATERIALS



(57) Abstract

Multi-ply facial tissue paper products comprising chemical softener compositions and a combination of a wet strength binder, permanent and/or temporary, and a dry strength binder is disclosed. The multi-ply facial tissue paper products contain a chemical softening composition comprising a mixture of a quaternary ammonium compound and a polyhydroxy compound. Preferred quaternary ammonium compounds include dialkyl dimethyl ammonium salts such as di(hydrogenated)tallow dimethyl ammonium chloride and/or di(hydrogenated)tallow dimethyl ammonium methyl sulfate. Preferred polyhydroxy compounds are selected from the group consisting of glycerol, polyglycerols having a weight average molecular weight of from about 150 to about 800, polyoxyethylene glycols and polyoxypropylene glycols having a weight average molecular weight from about 200 to 1000. The multi-ply facial tissue paper products also contain an effective amount of a wet strength binder, permanent and/or temporary, and a dry strength binder to control linting and/or to offset the loss in tensile strength, if any, resulting from the use of the chemical softening compositions. The use of both wet strength binder, either permanent or temporary, and a dry strength binder also improves the retention of the chemical softening composition in the sheet. Preferably, the majority of the chemical softening compositions will be disposed on the outer layers of the multi-ply facial tissue paper products where they are most effective. In other words, the chemical softening compositions and the wet strength binder, permanent and/or temporary, and a dry strength binder can be selectively distributed within the multi-ply facial tissue paper product to enhance the softness, absorbency and/or lint resistance of a particular layer or ply.

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