These objects are achieved by an agent having the features of claim 1 and claim 11.

Surprisingly, it has been established that a both effective and also gentle stain removal can be achieved even on sensitive surfaces if the agent comprises, besides the respective active substances such as acids, alkalis, bleaches and/or organic hydrophobic solvents not bonded in a gel, also surfactants and an adhesion promoter, where the adhesion promoter is selected from the group of the alkylene styrene copolymers. copolymers~~, the olefin homopolymers or olefin copolymers of two or more olefins, where the polymers may also be hydrogenated, and the polyalkylene derivatives~~.

Here, the “active substances” generally bring about the actual stain removal.

The adhesion promoters serve to make the agent sticky so that, following application to the stain in question or the deposit, the agent sticks and does not run off or drip off.

The surfactants present in the agent bring about, on the one hand, a cleaning effect. Moreover, they contribute to the hydrophobic adhesion promoter dissolving in the presence of water.

The adhesion promoter, which is generally hydrophobic, moreover brings about a protection and delay effect. Water-soluble active ingredients are only released from the agent in the presence of water. Before that, reactive active ingredients are protected in the hydrophobic matrix.

surfactants. Examples of amphoteric surfactants are fatty acid amidopropylbetaines with C5-C21 fatty acid fractions, but also amphodiacetates.

Cationic surfactants are preferably used in the present acidic formulation also as bactericidally effective substances. Zwitterionic surfactants can be described by way of example as quaternary ammonium, phosphonium or sulfonium components which are joined via an aliphatic bridge to a further now anionic group such as carboxy, sulfonate, sulfate, phosphate or phosphonate.

Foamers which can be added to the agent are also olefin sulfonates, ether sulfates or acid methyltaurides. If strong foamers are used, then preferably 1 to 50, in particular 1 to 25% of the surfactant phase can be replaced by one or more foamers, e.g. from the group of the betaines, the alkoxylated alkyl ether sulfates or lactobionic acid derivatives. These foamers can be selected from the fatty acid amidopropylbetaines with a C5-C21 fatty acid fraction such as, for example, cocoamidopropylbetaine, the alkali metal or ammonium salts of the lauryl ether sulfates with 1 to 5 EO, lactobionococoylamide, lactobionooleylamide, lactobionotallowamide etc. or mixtures thereof. These foamers can be readily incorporated into the agent according to the invention. Preference is given to using those cosurfactants which are present in solid, preferably pulverulent or highly viscous form.

Adhesion promoters

An essential constituent of the agent according to the invention are adhesion promoters which are selected from the group of the alkylene styrene copolymers, ~~the olefin homopolymers or olefin copolymers of two or more~~

~~olefins,~~ where the polymers may also be hydrogenated~~, and the polyalkylene derivatives~~.

The alkylene styrene copolymers selected are preferably diblock or triblock copolymers, in particular from the group of the styrene-butadiene-styrene copolymers (SBS), the styrene-isoprene-styrene copolymer (SIS), the styrene-ethylene/butylene-styrene copolymers (S-EB-S), the styrene-ethylene/propylene copolymers (S-EP), the styrene-ethylene/butylene copolymers (S-EB), the styrene-butadiene copolymers (SB) and styrene-isoprene copolymers (SI). The alkylene styrene copolymers may also be hydrogenated or partially hydrogenated. Preferably, the hydrogenated or nonhydrogenated alkylene styrene copolymers are crosslinked.

The alkylene styrene copolymers, in particular the polymers from the group of the alkylene styrene copolymers, are preferably dissolved in a solvent, in particular hydrophobic solvents such as mineral or vegetable oils, alkanes or aromatic hydrocarbons. The solvents should be aprotic and nonpolar and preferably nonreactive.
As a result of this, hydrophobic gels that are sticky are often formed. Such gels consist in general for example of 1 to 20% by weight of polymers and 80 to 99% by weight of hydrophobic solvents such as, for example, mineral oil.

Alkylene styrene copolymers are supplied for example in the form of a solution in a hydrophobic solvent by Penreco under the trade name Versagel, such as e.g. Versagel M750 or Versagel M1600. Kraton Performance Polymers supplies alkylene styrene copolymers as solid under the trade name “Kraton”.

By adding the polymers – optionally dissolved in hydrophobic solvents – the agents are also sticky. The result of this is that the agent adheres to the surface of the object in question and can thus have an effect on the surface to be treated over an extended period during flushing or during the washing process.

~~The olefin homopolymers or copolymers that can be used are polybutadiene rubbers, styrene butadiene block polymers and copolymers, and also the polyisopropenes, but also random (block) polymers which are obtained by 1, 3 addition of butadiene or isoprene onto styrene or alpha methyl styrene. Homopolymers or copolymers of ethylene or propylene, such as the ethylene propylene diene terpolymers, the natural rubbers and the norbornene polymers or polydicyclopentadiene can also be used. The compounds from the group of the olefin homopolymers and copolymers can also be partially hydrogenated, partially oxidized or further functionalized via graft molecules.~~

~~A further possible class of adhesion promoters from the group of the polyalkylene derivatives comprises polyalkylene chains with randomly distributed functional groups. The polyalkylene chains are preferably polybutadiene, polyisopropylene and polypropylene chains.~~

~~The functional groups randomly distributed on the polyalkylene chains are preferably reactive groups, in particular from the group of the anhydrides, thiols, epoxides or primary amines. The functional groups are of course to be selected such that the adhesion promoters do not react with the other constituents of the agent.~~

~~Particular preference is given to polymers with maleic anhydride groups bonded randomly to the polybutadiene~~

~~chain. The particularly preferred maleic anhydride adduct onto 1,4 cis-polybutadiene is available from Degussa under the name Polyvest.~~

Active substance

The agent according to the invention furthermore comprises at least one active substance which is to be selected according to the stain to be removed or the deposit to be removed.

Active substances in the context of the present invention are acids, alkalis, bleaches and freely available organic hydrophobic solvents. Depending on the intended use, a plurality of active substances may also be present in the agent.

Acids as active substance

If the agent according to the invention comprises acids as active substance, then the agent is suitable, for example, for the removal of stains from soft surfaces such as of stains on items of clothing in the armpit area or of rust and blood stains or contaminants on top of calcifications.

Acids that can be used are organic and inorganic acids, also in combination.

Suitable organic acids are, for example, acetic acid, lactic acid, citric acid, lavulinic acid, tartaric acid, formic acid, glycolic acid, succinic acid, glutaric acid, maleic acid, methanesulfonic acid, sulfamic acid or else oxalic acid. The concentration of organic acids should be between 1% by weight and 60% by weight, preferably between 15% by weight and 40% by weight.