Claims

1. A composition comprising 98.5 wt.-% or more of polyisobutylene and having an ash content measured according to ASTM D5667 of 0.2 wt.-% or less.

2. The composition according to claim 1, further comprising 1 ppm to 5,000 ppm of at least one lower critical solution temperature compound.

3. The composition according to claim 2, wherein said at least one lower critical solution temperature compound is selected from the group consisting of poly(N-isopropylacrylamide), poly(N-isopropylacrylamide-co-N,N-dimethylacrylamide, poly(N-isopropylacrylamide)-alt-2-hydroxyethylmethacrylate, poly(N-vinylcaprolactam), poly(N,N-diethylacrylamide), poly[2-(dimethylamino)ethyl methacrylate], poly(2-oxazoline) glypolyisobutylenes, poly(3-ethyl-N-vinyl-2-pyrrolidone), hydroxylbutyl chitosan, polyoxyethylene (20) sorbitan monostearate, polyoxyethylene (20) sorbitan monolaurate, polyoxyethylene (20) sorbitan monooleate, methyl cellulose, hydroxypropyl cellulose, hydroxyethyl methylcellulose, hydroxypropyl methylcellulose, a poly(ethylene glycol) methacrylate comprising 2 to 6 ethylene glycol units, a polyethyleneglycol-co-polypropylene glycol, a compound of formula (I):

$$HO\text{-}[\text{-}CH_2\text{-}CH_2\text{-}O]_x\text{-}[\text{-}CH(CH_3)\text{-}CH_2\text{-}O]_y\text{-}[\text{-}CH_2\text{-}CH_2\text{-}O]_z\text{-}H \qquad (I)$$

wherein y=3 to 10 and x and z=1 to 8, whereby y+x+z is from 5 to 18, an ethoxylated iso-$C_{13}H_{27}$-alcohol, a polyethylene glycol comprising 4 to 50 ethyleneglycol units, a polypropylene glycol comprising 4 to 30 propyleneglycol units, a polyethylene glycol monomethyl ether comprising 4 to 50 ethyleneglycol units, a polyethylene glycol dimethyl ether comprising 4 to 50 ethyleneglycol units, a polyethylene glycol monoethyl ether comprising 4 to 50 ethyleneglycol units, a polyethylene glycol diethyl ether comprising 4 to 50 ethyleneglycol units, a polypropylene glycol monomethyl ether comprising 4 to 50 propyleneglycol units, a polypropylene glycol dimethyl ether comprising 4 to 50 propyleneglycol units, a polypropylene glycol monoethyl ether comprising 4 to 50 propyleneglycol units, a polypropylene glycol diethyl ether comprising 4 to 50 propyleneglycol units, and hydroxyethylcellulose.

4. The composition according to claim 3, wherein said at least one lower critical solution temperature compound is a polyethyleneglycol-co-polypropylene glycol comprising 2 to 8 ethylene glycol units and 2 to 8 polypropylene units.

5. The composition according to claim 4, wherein said at least one lower critical solution temperature compound is a polyethyleneglycol-co-polypropylene glycol comprising 2 to 6 ethylene glycol units and 2 to 6 polypropylene units.

6. The composition according to claim 3, wherein said at least one lower critical solution temperature compound is an ethoxylated iso-$C_{13}H_{27}$-alcohol having an ethoxylation degree of 4 to 8.

7. The composition according to claim 3, wherein said at least one lower critical solution temperature compound is polyethylene glycol comprising 4 to 20 ethyleneglycol units.

8. The composition according to claim 3, wherein said at least one lower critical solution temperature compound is polypropylene glycol comprising 4 to 15 propyleneglycol units.

9. The composition according to claim 3, wherein said at least one lower critical solution temperature compound is selected from the group consisting of a polyethylene glycol monomethyl ether comprising 4 to 20 ethyleneglycol units, a polyethylene glycol dimethyl ether comprising 4 to 20 ethyleneglycol units, a polyethylene glycol monoethyl ether comprising 4 to 20 ethyleneglycol units, and a polyethylene glycol diethyl ether comprising 4 to 20 ethyleneglycol units.

10. The composition according to claim 3, wherein said at least one lower critical solution temperature compound is selected from the group consisting of a polypropylene glycol monomethyl ether comprising 4 to 20 propyleneglycol units, a polypropylene glycol dimethyl ether comprising 4 to 20 propyleneglycol units, a polypropylene glycol monoethyl ether comprising 4 to 20 propyleneglycol units, a polypropylene glycol diethyl ether comprising 4 to 20 propyleneglycol units.

11. The composition according to claim 2, wherein said at least one lower critical solution temperature compound is selected from the group consisting of methyl cellulose, hydroxypropyl cellulose, hydroxyethyl methylcellulose, and hydroxypropyl methylcellulose.

12. The composition according to claim 11, wherein said methyl cellulose, hydroxypropyl cellulose, hydroxyethyl methylcellulose, and hydroxypropyl methylcellulose have a degree of substitution of from 0.5 to 2.8.

13. The composition according to claim 12, wherein the degree of substitution is from 1.2 to 2.5.

14. The composition according to claim 12, wherein the degree of substitution is from 1.5 to 2.0.

15. The composition according to claim 11, wherein said hydroxypropyl cellulose, hydroxyethyl methylcellulose, and hydroxypropyl methylcellulose have a moles of substitution of at least 3 with respect to ethylene glycol or propylene glycol groups per glucose unit.

16. The composition according to claim 15, wherein the moles of substitution is from 4 to 20 with respect to ethylene glycol or propylene glycol groups per glucose unit.