Claims

[Claim 1]

A method for producing a water-absorbent resin comprising:

subjecting at least one water-soluble ethylenic unsaturated monomer to reversed-phase suspension polymerization in a petroleum hydrocarbon dispersion medium,

the reversed-phase suspension polymerization being conducted using 0.00005 to 0.00016 mol of water-soluble azo initiator for radical polymerization per mol of the water-soluble ethylenic unsaturated monomer to be used in the presence of 0.000015 to 0.00015 mol of hypophosphorous compound per mol of the water-soluble ethylenic unsaturated monomer to be used.

[Claim 2]

The method for producing a water-absorbent resin according to claim 1, wherein the water-soluble azo initiator for radical polymerization is at least one member selected from the group consisting of 2,2'-azobis(2-amidinopropane)dihydrochloride, 2,2'-azobis{2-[1-(2-hydroxyethyl)-2-imidazolin-2-yl]propane}dihydrochloride, and 2,2'-azobis[N-(2-carboxyethyl)-2-methylpropioneamidine]tetrahydrate.

[Claim 3]

The method for producing a water-absorbent resin according to claim 1 or 2, wherein the hypophosphorous compound is at least one member selected from the group consisting of hypophosphorous acid and sodium hypophosphite.

[Claim 4]

The method for producing a water-absorbent resin according to any one of claims 1 to 3, wherein the water-soluble ethylenic unsaturated monomer is at least one member selected from the group consisting of (meth)acrylic acid and salts thereof.

[Claim 5]

The method for producing a water-absorbent resin according to any one of claims 1 to 4, wherein the reversed-phase suspension polymerization is conducted in two or more steps.

[Claim 6]

The method for producing a water-absorbent resin according to any one of claims 1 to 5, wherein post-crosslinking is conducted by adding a cross-linking agent after the completion of the reversed-phase suspension polymerization of the water-soluble ethylenic unsaturated monomer.

[Claim 7]

A water-absorbent resin produced by any one of the methods of claims 1 to 6.

Claims

1. A method for producing a water-absorbent resin comprising:

subjecting at least one water-soluble ethylenic unsaturated monomer to reversed-phase suspension polymerization in a petroleum hydrocarbon dispersion medium,

the reversed-phase suspension polymerization being conducted using 0.00005 to 0.00016 mol of water-soluble azo initiator for radical polymerization per mol of the water-soluble ethylenic unsaturated monomer to be used in the presence of 0.000015 to 0.00015 mol of hypophosphorous compound per mol of the water-soluble ethylenic unsaturated monomer to be used.

2. The method for producing a water-absorbent resin according to claim 1, wherein the water-soluble azo initiator for radical polymerization is at least one member selected from the group consisting of 2,2'-azobis(2-amidinopropane)dihydrochloride, 2,2'-azobis {2-[1-(2-hydroxyethyl)-2-imidazolin-2-yl]propane}dihydrochloride, and 2,2'-azobis[N-(2-carboxyethyl)-2-methylpropioneamidine]tetrahydrate.

3. The method for producing a water-absorbent resin according to claim 1, wherein the hypophosphorous compound is at least one member selected from the group consisting of hypophosphorous acid and sodium hypophosphite.

4. The method for producing a water-absorbent resin according to claim 1, wherein the water-soluble ethylenic unsaturated monomer is at least one member selected from the group consisting of (meth)acrylic acid and salts thereof.

5. The method for producing a water-absorbent resin according to claim 1, wherein the reversed-phase suspension polymerization is conducted in two or more steps.

6. The method for producing a water-absorbent resin according to claim 1, wherein post-crosslinking is conducted by adding a cross-linking agent after the completion of the reversed-phase suspension polymerization of the water-soluble ethylenic unsaturated monomer.

7. A water-absorbent resin produced by the method of claim 1.