What is claimed is:

1. A composition containing particles of copper pyrithione wherein from greater than 20 wt% to 90 wt% of the copper pyrithione particles have a particle size of greater than 10 microns determined by laser light scattering using a particle size distribution analyzer, and wherein the particles of copper pyrithione are flat acicular needle-shaped.

2. The composition of claim 1 wherein from 25 wt% to 70 wt% of the particles have a particle size of greater than 10 microns.

3. The composition of claim 1 wherein from 30 wt% to 60 wt% of the particles have a particle size of greater than 10 microns.

4. The composition of claim 1 further comprising a polymer selected from the group consisting of silyl acrylates, metal acrylates, polyvinyl chloride, copolymers of vinyl chloride, vinyl acetate, copolymers of vinyl acetate, acrylic copolymers, epoxy, alkyd, polyvinyl alcohol, cellulose ethers, acid functional acrylates, chitosan, polyvinyl ethers and combinations thereof or a non-polymer selected from the group consisting of rosin, rosin derivatives, and combinations thereof.

5. The composition of claim 4 wherein the polymer is silyl acrylate.

6. The composition of claim 5 wherein the silyl acrylate has a number average molecular weight of between about 2000 to about 6000.

7. The composition of claim 6 further comprising zinc hydroxide.

8. An antifouling coating composition comprising copper pyrithione particles and a silyl acrylate polymer, wherein from 20 wt% to 90 wt% of the copper pyrithione particles have a size of greater than 10 microns determined by laser light scattering using a particle size distribution analyzer, and wherein the copper pyrithione particles are flat acicular needle-shaped.

9. The antifouling coating composition of claim 8 further comprising a water soluble or slightly water soluble resin, wherein said resin is present in an amount of from about 4 to about 15% based on the total weight of the coating composition.

10. The antifouling coating composition of claim 9 wherein the resin is selected from the group consisting of rosin, polyvinyl ether, chitosan, and combinations thereof.

11. The antifouling composition of claim 8 further comprising an additive selected from the group consisting of copper metals, copper oxide, copper thiocyanate, zinc oxide, zinc borate, barium metaborate, triphenyl boron pyridine, triphenyl boron octidecyl amine, tralopyril, chlorfenapyr, tolyfluanid, dichlofluanid, zinc pyrithione, 4,5-dichloro-2-n-octyl-4-isothiazolin-3-one, 2-methylthis-4-tert-butyl amino-6-cyclopropyamino-s-triazine, zineb, ziram, polycarbamate, maneb, chlorothalonil, and combinations thereof.

12. The antifouling composition of claim 8 further comprising zinc hydroxide.

13. A process of preparing a composition containing particles of copper pyrithione comprising the step of reacting zinc pyrithione with a copper salt in the presence of a non-reactive polymer or non-polymer binder.

14. The process of claim 13 wherein said copper salt is selected from the group consisting of copper hydroxide, copper carbonate, copper nitrate, copper sulfate, copper chloride, and combinations thereof.

15. The process of claim 13 wherein said copper salt is copper hydroxide.

16. The process of claim 13 wherein the polymer is silyl acrylate.

17. The process of claim 13 wherein the polymer is metal acrylates, polyvinyl chloride, copolymers of vinyl chloride, vinyl acetate, copolymers of vinyl acetate, acrylic copolymers, epoxy, alkyd, polyvinyl alcohol, cellulose ethers, acid functional acrylates, chitosan, or polyvinyl ethers.

18. The process of claim 13 wherein the non-polymer binder is selected from the group consisting of rosin, rosin derivatives, and combinations thereof.

19. The process of claim 13 wherein from 20 wt% to 90 wt% of the copper pyrithione particles have a size of greater than 10 microns determined by laser light scattering using a particle size distribution analyzer, and wherein the particles are flat acicular needle-shaped.

What is claimed is:

1. A composition containing particles of copper pyrithione wherein from greater than 20 wt% to 90 wt% of the copper pyrithione particles have a particle size of greater than 10 microns determined by laser light scattering using a particle size distribution analyzer, and wherein the particles of copper pyrithione are flat acicular needle-shaped.

2. The composition of claim 1 wherein from 25 wt% to 70 wt% of the particles have a particle size of greater than 10 microns.

3. The composition of claim 1 or 2 wherein from 30 wt% to 60 wt% of the particles have a particle size of greater than 10 microns.

4. The composition of any one of claims 1 to 3 further comprising a polymer selected from the group consisting of silyl acrylates, metal acrylates, polyvinyl chloride, copolymers of vinyl chloride, vinyl acetate, copolymers of vinyl acetate, acrylic copolymers, epoxy, alkyd, polyvinyl alcohol, cellulose ethers, acid functional acrylates, chitosan, polyvinyl ethers and combinations thereof or a non-polymer selected from the group consisting of rosin, rosin derivatives, and combinations thereof.

5. The composition of claim 4 wherein the polymer is silyl acrylate.

6. The composition of claim 5 wherein the silyl acrylate has a number average molecular weight of between about 2000 to about 6000.

7. The composition of claim 6 further comprising zinc hydroxide.

8. An antifouling coating composition comprising copper pyrithione particles and a silyl acrylate polymer, wherein from 20 wt% to 90 wt% of the copper pyrithione particles have a size of greater than 10 microns determined by laser light scattering using a particle size distribution analyzer, and wherein the copper pyrithione particles are flat acicular needle-shaped.

9. The antifouling coating composition of claim 8 further comprising a water soluble or slightly water soluble resin, wherein said resin is present in an amount of from about 4 to about 15% based on the total weight of the coating composition.

10. The antifouling coating composition of claim 9 wherein the resin is selected from the group consisting of rosin, polyvinyl ether, chitosan, and combinations thereof.

11. The antifouling composition of any one of claims 8 to 10 further comprising an additive selected from the group consisting of copper metals, copper oxide, copper thiocyanate, zinc oxide, zinc borate, barium metaborate, triphenyl boron pyridine, triphenyl boron octidecyl amine, tralopyril, chlorfenapyr, tolyfluanid, dichlofluanid, zinc pyrithione, 4,5-dichloro-2-n-octyl-4-isothiazolin-3-one, 2-methylthio-4-tert-butyl amino-6-cyclopropylamino-s-triazine, zineb, ziram, polycarbamate, maneb, chlorothalonil, and combinations thereof.

12. The antifouling composition of any one of claims 8 to 11 further comprising zinc hydroxide.

13. A process of preparing a composition containing particles of copper pyrithione comprising the step of reacting zinc pyrithione with a copper salt in the presence of a non-reactive polymer or non-polymer binder wherein from greater than 20 wt% to 90 wt% of the copper pyrithione particles have a particle size of greater than 10 microns as determined by laser light scattering using a particle size distribution analyzer.

14. The process of claim 13 wherein said copper salt is selected from the group consisting of copper hydroxide, copper carbonate, copper nitrate, copper sulfate, copper chloride, and combinations thereof.

15. The process of claim 13 wherein said copper salt is copper hydroxide.

16. The process of any one of claims 13 to 15 wherein the polymer is silyl acrylate.

17. The process of any one of claims 13 to 15 wherein the polymer is metal acrylates, polyvinyl chloride, copolymers of vinyl chloride, vinyl acetate, copolymers of vinyl acetate, acrylic copolymers, epoxy, alkyd, polyvinyl alcohol, cellulose ethers, acid functional acrylates, chitosan, or polyvinyl ethers.

18. The process of any one of claims 13 to 15 wherein the non-polymer binder is selected from the group consisting of rosin, rosin derivatives, and combinations thereof.

19. The process of any one of claims 13 to 18 wherein the particles are flat acicular needle-shaped.