THAT WHICH IS CLAIMED IS:

1. A flame retardant additive composition which comprises

at least one glow suppressant, wherein the glow suppressant is a compound comprising at least one 5-membered or 6-membered ring moiety containing at least one nitrogen atom; and

at least one brominated flame retardant, wherein the brominated flame retardant contains aromatically-bound bromine and is selected from

a) a brominated anionic styrenic polymer having a number average molecular weight of about 750 to about 7500, and/or a bromine content of about 60 wt% to about 77 wt%,

b) a brominated anionic chain transfer vinyl aromatic polymer which contains about 70 wt% or more bromine,

or a mixture of any two or more of these;

wherein the flame retardant additive composition contains about 0.5 wt% or more glow suppressant, based on the total weight of the flame retardant additive composition.

2. A flame retardant additive composition as in Claim 1 wherein the 5-membered or 6-membered ring moiety containing at least one nitrogen atom of the glow suppressant is an unsaturated ring moiety, or wherein the 5-membered or 6-membered ring moiety containing at least one nitrogen atom of the glow suppressant is selected from triazole, piperidine, piperazine, triazine, and morpholine.

3. A flame retardant additive composition as in any of Claims 1-2 which contains about 1 wt% or more glow suppressant, based on the total weight of the flame retardant additive composition.

4. A flame retardant additive composition as in Claim 1 which comprises at least one inorganic compound, optionally wherein

i) the total amount of inorganic compounds is about 10 wt% or more, based on the total weight of the flame retardant additive composition; or

ii) the inorganic compound comprises talc, antimony trioxide, zinc borate, aluminum phosphinate, aluminum diethyl phosphinate, calcium phosphinate, and/or hydrotalcite; or

iii) the inorganic compound comprises talc and antimony trioxide, and optionally at least one inorganic compound selected from zinc borate, aluminum phosphinate, aluminum diethyl phosphinate, calcium phosphinate, and/or hydrotalcite.

5. A flame retardant additive composition as in any of Claims 1-2 or 3-4 wherein the glow suppressant comprises melamine polyphosphate, optionally wherein the composition comprises at least one inorganic compound, and wherein the inorganic compound is zinc borate and aluminum diethyl phosphinate.

6. A flame retardant additive composition as in any of Claims 1-2, 3-4, or 5 wherein the brominated anionic styrenic polymer is

i) a brominated anionic polystyrene having a number average molecular weight of about 1000 to about 4000, and/or a bromine content of about 70 wt% to about 77 wt%, or

ii) a brominated anionic polystyrene having a number average molecular weight of about 2000 to about 3500, and/or a bromine content of about 72 wt% to about 76 wt%.

7. A process for forming a flame retardant additive composition, which process comprises combining

at least one glow suppressant, wherein the glow suppressant is a compound comprising at least one 5-membered or 6-membered ring moiety containing at least one nitrogen atom; and

at least one brominated flame retardant that contains aromatically-bound bromine and is selected from

a) a brominated anionic styrenic polymer having a number average molecular weight of about 750 to about 7500, and/or a bromine content of about 60 wt% to about 77 wt%,

b) a brominated anionic chain transfer vinyl aromatic polymer which contains about 70 wt% or more bromine,

or a mixture of any two or more of these;

in amounts such that the flame retardant additive composition contains about 0.5 wt% or more glow suppressant, based on the total weight of the flame retardant additive composition.

8. A process as in Claim 7 wherein the 5-membered or 6-membered ring moiety containing at least one nitrogen atom of the glow suppressant is an unsaturated ring moiety, or wherein the 5-

membered or 6-membered ring moiety containing at least one nitrogen atom of the glow suppressant is selected from triazole, piperidine, piperazine, triazine, and morpholine.

9. A process as in any of Claims 7-8 wherein the glow suppressant is in an amount of about 1 wt% or more, based on the total weight of the flame retardant additive composition.

10. A process as in Claim 7 which comprises combining at least one inorganic compound, optionally wherein the inorganic compound is in an amount such that the flame retardant additive composition contains about 10 wt% or more inorganic compound, based on the total weight of the flame retardant additive composition.

11. A process as in Claim 10 wherein the inorganic compound comprises talc, antimony trioxide, zinc borate, aluminum phosphinate, aluminum diethyl phosphinate, calcium phosphinate, and/or hydrotalcite, or wherein the inorganic compound comprises talc and antimony trioxide, and optionally at least one inorganic compound selected from zinc borate, aluminum phosphinate, aluminum diethyl phosphinate, calcium phosphinate, and/or hydrotalcite.

12. A process as in any of Claims 7-8, 9-10 or 11 wherein the glow suppressant comprises melamine polyphosphate, optionally wherein the process comprises combining at least one inorganic compound, and wherein the inorganic compounds are zinc borate and aluminum diethyl phosphinate.

13. A process as in any of Claims 7-8, 9-10, 11, or 12 wherein the brominated anionic styrenic polymer is

i) a brominated anionic polystyrene having a number average molecular weight of about 1000 to about 4000, and/or a bromine content of about 70 wt% to about 77 wt%, or

ii) a brominated anionic polystyrene having a number average molecular weight of about 2000 to about 3500, and/or a bromine content of about 72 wt% to about 76 wt%.

14. A flame retarded polyolefin composition formed from

i) at least one glow suppressant, wherein the glow suppressant is a compound comprising at least one 5-membered or 6-membered ring moiety containing at least one nitrogen atom;

ii) at least one inorganic compound; and

iii) at least one brominated flame retardant in a flame retardant amount, wherein the brominated flame retardant contains aromatically-bound bromine and is selected from

a) a brominated anionic styrenic polymer having a number average molecular weight of about 750 to about 7500, and/or a bromine content of about 60 wt% to about 77 wt%, with the proviso that when the glow suppressant is a triazine, the triazine is a 1,3,5-triazine substituted at the 2, 4, and 6 positions of the ring and the substituents are amino groups,

b) a brominated anionic chain transfer vinyl aromatic polymer which contains about 70 wt% or more bromine,

or a mixture of any two or more of these, and

iv) at least one polyolefin,

wherein the flame retarded polyolefin composition contains about 0.25 wt% or more glow suppressant, based on the total weight of the flame retarded polyolefin composition, and wherein the flame retarded polyolefin composition contains about 5 wt% or more inorganic compound, based on the total weight of the flame retarded polyolefin composition.

15. A flame retarded polyolefin composition as in Claim 14 wherein the 5-membered or 6-membered ring moiety containing at least one nitrogen atom of the glow suppressant is an unsaturated ring moiety, or wherein the 5-membered or 6-membered ring moiety containing at least one nitrogen atom of the glow suppressant is selected from triazole, piperidine, piperazine, triazine, and morpholine.

16. A flame retarded polyolefin composition as in any of Claims 14-15 which contains about 0.5 wt% or more glow suppressant, based on the total weight of the flame retarded polyolefin composition.

17. A flame retarded polyolefin composition as in Claim 14 wherein the inorganic compound is in an amount of about 8 wt% or more, based on the total weight of the flame retarded polyolefin composition.

18. A flame retarded polyolefin composition as in any of Claims 14-15 or 16-17 wherein the inorganic compound comprises talc, antimony trioxide, zinc borate, aluminum phosphinate, aluminum diethyl phosphinate, calcium phosphinate, and/or hydrotalcite, or wherein the inorganic compound comprises talc and antimony trioxide, and optionally at least one inorganic compound selected from zinc borate, aluminum phosphinate, aluminum diethyl phosphinate, calcium phosphinate, and/or hydrotalcite.

19. A flame retarded polyolefin composition as in any of Claims 14-15 or 16-18 wherein the glow suppressant comprises melamine polyphosphate, optionally wherein the composition comprises at least one inorganic compound, and wherein the inorganic compound is zinc borate and aluminum diethyl phosphinate.

20. A flame retarded polyolefin composition as in any of Claims 14-15, 16-18, or 19 wherein the brominated anionic styrenic polymer is

i) a brominated anionic polystyrene having a number average molecular weight of about 1000 to about 4000, and/or a bromine content of about 70 wt% to about 77 wt%, or
ii) a brominated anionic polystyrene having a number average molecular weight of about 2000 to about 3500, and/or a bromine content of about 72 wt% to about 76 wt%.

21. A process for forming a flame retarded polyolefin composition, which process comprises combining

i) at least one glow suppressant, wherein the glow suppressant is a compound comprising at least one 5-membered or 6-membered ring moiety containing at least one nitrogen atom;
ii) at least one inorganic compound;
iii) at least one brominated flame retardant in a flame retardant amount, wherein the brominated flame retardant contains aromatically-bound bromine and is selected from
    a) a brominated anionic styrenic polymer having a number average molecular weight of about 750 to about 7500, and/or a bromine content of about 60 wt% to about 77 wt%, with the proviso that when the glow suppressant is a triazine, the triazine is a 1,3,5-triazine substituted at the 2, 4, and 6 positions of the ring and the substituents are amino groups,
    b) a brominated anionic chain transfer vinyl aromatic polymer which contains about 70 wt% or more bromine,

or a mixture of any two or more of these, and

iv) at least one polyolefin,

in amounts such that the flame retarded polyolefin composition contains about 0.25 wt% or more glow suppressant, based on the total weight of the flame retarded polyolefin composition, and wherein the flame retarded polyolefin composition contains about 5 wt% or more inorganic compound, based on the total weight of the flame retarded polyolefin composition.

22. A process as in Claim 21 wherein the 5-membered or 6-membered ring moiety containing at least one nitrogen atom of the glow suppressant is an unsaturated ring moiety, or wherein the 5-membered or 6-membered ring moiety containing at least one nitrogen atom of the glow suppressant is selected from triazole, piperidine, piperazine, triazine, and morpholine.

23. A process as in any of Claims 21-22 in which there is about 0.5 wt% or more glow suppressant, based on the total weight of the flame retarded polyolefin composition.

24. A process as in Claim 21 wherein the inorganic compound is in an amount such that the flame retarded polyolefin composition contains about 8 wt% or more inorganic compound, based on the total weight of the flame retarded polyolefin composition.

25. A process as in any of Claims 21-22 or 23-24 wherein the inorganic compound comprises talc, antimony trioxide, zinc borate, aluminum phosphinate, aluminum diethyl phosphinate, calcium phosphinate, and/or hydrotalcite, or wherein the inorganic compound comprises talc and antimony trioxide, and optionally at least one inorganic compound selected from zinc borate, aluminum phosphinate, aluminum diethyl phosphinate, calcium phosphinate, and/or hydrotalcite.

26. A process as in any of Claims 21-22 or 23-25 wherein the glow suppressant comprises melamine polyphosphate, optionally wherein the inorganic compounds are zinc borate and aluminum diethyl phosphinate.

27. A process as in any of Claims 21-22, 23-25, or 26 wherein the brominated anionic styrenic polymer is

i) a brominated anionic polystyrene having a number average molecular weight of about 1000 to about 4000, and/or a bromine content of about 70 wt% to about 77 wt%, or

ii) a brominated anionic polystyrene having a number average molecular weight of about 2000 to about 3500, and/or a bromine content of about 72 wt% to about 76 wt%.

28. A flame retarded polyolefin composition formed from at least one polyolefin and a flame retardant amount of a brominated flame retardant that contains aromatically-bound bromine and is a brominated anionic styrenic polymer having a number average molecular weight of about 750 to about 7500, and/or a bromine content of about 60 wt% to about 77 wt%.

29. A flame retarded polyolefin composition as in Claim 28 wherein the flame retardant amount is about 5 wt% or more, based on the total weight of the flame retarded polyolefin composition.

30. A flame retarded polyolefin composition as in Claim 28 or 29 which comprises at least one inorganic compound, optionally wherein

i) wherein the inorganic compounds comprise talc, antimony trioxide, zinc borate, aluminum phosphinate, aluminum diethyl phosphinate, calcium phosphinate, and/or hydrotalcite.
ii) wherein the inorganic compounds are talc and antimony trioxide, and at least one inorganic compound selected from zinc borate, aluminum phosphinate, aluminum diethyl phosphinate, calcium phosphinate, and/or hydrotalcite.

31. A flame retarded polyolefin composition as in any of Claims 28-30 wherein the brominated anionic styrenic polymer is

i) a brominated anionic polystyrene having a number average molecular weight of about 1000 to about 4000, and/or a bromine content of about 70 wt% to about 77 wt%, or
ii) a brominated anionic polystyrene having a number average molecular weight of about 2000 to about 3500, and/or a bromine content of about 72 wt% to about 76 wt%.

32. A masterbatch which comprises

a polyolefin; and

a brominated flame retardant that contains aromatically-bound bromine and is selected from

a) a brominated anionic styrenic polymer having a <u>number</u> ~~weight~~ average molecular weight of about 750 to about 7500, and/or a bromine content of about 60 wt% to about 77 wt%,
b) a brominated anionic chain transfer vinyl aromatic polymer which contains about 70 wt% or more bromine,

or a mixture of any two or more of these.

33. A masterbatch as in Claim 32 which comprises

i) at least one glow suppressant, wherein the glow suppressant is a compound comprising at least one 5-membered or 6-membered ring moiety containing at least one nitrogen atom, with the proviso that when the glow suppressant is a triazine, the triazine is a 1,3,5-triazine substituted at the 2, 4, and 6 positions of the ring and the substituents are amino groups when the brominated flame retardant is a brominated anionic styrenic polymer, or

ii) at least one inorganic compound and at least one glow suppressant, wherein the glow suppressant is a compound comprising at least one 5-membered or 6-membered ring moiety containing at least one nitrogen atom.

34. A masterbatch as in Claim 33 wherein the 5-membered or 6-membered ring moiety containing at least one nitrogen atom of the glow suppressant is an unsaturated ring moiety, or wherein the 5-membered or 6-membered ring moiety containing at least one nitrogen atom of the glow suppressant is selected from triazole, piperidine, piperazine, triazine, and morpholine.

35. A masterbatch as in Claim 32 which comprises at least one inorganic compound, optionally wherein the inorganic compound comprises antimony trioxide.

36. A masterbatch as in any of Claims 32-33, 34, or 35 wherein when a glow suppressant is present, the glow suppressant comprises melamine polyphosphate, optionally wherein the masterbatch comprises at least one inorganic compound, and wherein the inorganic compound is antimony trioxde.

37. A masterbatch as in any of Claims 32-33, 34, 35, or 36 wherein the brominated anionic styrenic polymer is

i) a brominated anionic polystyrene having a number average molecular weight of about 1000 to about 4000, and/or a bromine content of about 70 wt% to about 77 wt%, or

ii) a brominated anionic polystyrene having a number average molecular weight of about 2000 to about 3500, and/or a bromine content of about 72 wt% to about 76 wt%.