

Claims:

1. A low-halogen thermoplastic polyamide composition comprising:
a polyamide resin;
a non-halogen flame retardant; and
a copper-containing heat stabilizer comprising a copper halide and an organophosphorus compound,
wherein the polyamide composition has an elemental bromine content of greater than 900 ppm but less than 1300 ppm.
2. The thermoplastic polyamide composition according to claim 1, wherein the polyamide resin is selected from the group consisting of PA-4,6; PA-6,I; PA-6,T; PA-6,6; PA-6/6,6; and a mixture thereof.
3. The thermoplastic polyamide composition according to claim 1, wherein the polyamide resin is PA-6,6.
4. The thermoplastic polyamide composition according to claim 1, wherein the non-halogen flame retardant is a non-halogen, nitrogen-containing flame retardant.
5. The thermoplastic polyamide composition according to claim 4, wherein the non-halogen, nitrogen-containing flame retardant is a melamine salt or a melamine complex/adduct.
6. The thermoplastic polyamide composition according to claim 5, wherein the melamine salt or a melamine complex/adduct is melamine cyanurate.
7. The thermoplastic polyamide composition according to claim 5, wherein the melamine salt or a melamine complex/adduct is melamine polyphosphate.
8. The thermoplastic polyamide composition according to claim 1, wherein the copper halide and the organophosphorus compound form a complex.

9. The thermoplastic polyamide composition according to claim 1, wherein the organophosphorus compound is triphenylphosphine.
10. The thermoplastic polyamide composition according to claim 1, wherein the organophosphorus compound is triphenylphosphite.
11. The thermoplastic polyamide composition according to claim 8, wherein the complex is copper(I) halide/bis(triphenylphosphine).
12. The thermoplastic polyamide composition according to claim 8, wherein the complex is copper(I) halide/bis(triphenylphosphite).
13. The thermoplastic polyamide composition according to claim 11 or claim 12, wherein the copper(I) halide is copper(I) iodide.
14. The thermoplastic polyamide composition according to claim 1, further comprising a lubricant/mold release agent.
15. The thermoplastic polyamide composition according to claim 14, wherein the lubricant/mold release agent is a stearic acid salt.
16. The thermoplastic polyamide composition according to claim 15, wherein the stearic acid salt is selected from the group consisting of Al stearate, Zn stearate and Ca stearate.
17. The thermoplastic polyamide composition according to claim 1, further comprising a colorant.
18. The thermoplastic polyamide composition according to claim 17, wherein the colorant is carbon black.
19. The thermoplastic polyamide composition according to claim 1, further comprising an additional copper-containing heat stabilizer.

20. A low-halogen thermoplastic polyamide composition comprising:
- a polyamide resin;
 - a non-halogen flame retardant; and
 - a copper-containing heat stabilizer comprising a copper halide and an organophosphorus compound,
- wherein the polyamide composition has a maximum elemental bromine content of 900 ppm.
21. The thermoplastic polyamide composition according to claim 1 or claim 20, comprising:
- 50-95% by weight of the polyamide resin;
 - 1-20% by weight of a melamine salt or a melamine complex/adduct as the non-halogen flame retardant;
 - 0.01-10% by weight of a copper halide/organophosphorus complex as the heat stabilizer;
 - 0-10% by weight of a lubricant/mold release agent; and
 - 0-10% by weight of a colorant.
22. The thermoplastic polyamide composition according to claim 21, wherein the polyamide resin is PA-6,6; and the copper halide/organophosphorus complex is copper(I) halide/ bis(triphenylphosphine).
23. The thermoplastic polyamide composition according to claim 21, wherein the melamine salt or melamine complex/adduct is melamine cyanurate.
24. The thermoplastic polyamide composition according to claim 21, wherein the melamine salt or melamine complex/adduct is melamine polyphosphate.
25. The thermoplastic polyamide composition according to claim 21, wherein the lubricant/mold release agent is a stearic acid salt.

26. The thermoplastic polyamide composition according to claim 25, wherein the stearic acid salt is zinc stearate.
27. The thermoplastic polyamide composition according to claim 21, wherein the colorant is carbon black.
28. An article obtained from the thermoplastic polyamide composition according to any one of claims 1, 20 and 21.
29. The article according to claim 28, where the article is an automotive part.
30. The article according to claim 28, where the article is an electric or electronic part.