

CLAIMS

1. A non-dust blend comprising tris(2-t-butylphenyl) phosphite.
2. The non-dust blend according to Claim 1, wherein the amount of dust in the non-dust blend is less than about 1% by weight of the non-dust blend.
3. The non-dust blend according to Claim 1 or Claim 2, wherein the tris(2-t-butylphenyl) phosphite is obtainable or obtained by adding 2-t-butyl phenol to a phosphorus trihalide.
4. The non-dust blend according to Claim 3, wherein the 2-t-butyl phenol is added to the phosphorus trihalide by subsurface addition.
5. The non-dust blend according to Claim 3 or Claim 4, wherein the addition of 2-t-butyl phenol to the phosphorus trihalide is conducted in the presence of a catalyst.
6. The non-dust blend according to Claim 5, wherein the catalyst has the formula $NR_1R_2R_3$ wherein R_1 is H or an optionally substituted hydrocarbyl group and R_2 and R_3 , which may be the same or different, are both optionally substituted hydrocarbyl groups of carbon chain length >1 ; and/or

wherein the catalyst has a cation and an anion, the cation having the formula $N^+R_1R_2R_3R_4$ wherein R_1 to R_4 , which may be the same or different, are optionally substituted hydrocarbyl groups having >1 carbon atoms.

7. The non-dust blend according to any one of claims 1 to 6, wherein the tris(2-t-butylphenyl) phosphite has a purity of at least about 98%, at least about 98.5%, at least about 99%, or at least about 99.5%.
8. The non-dust blend according to any one of claims 1 to 7, wherein the non-dust blend additionally comprises one of more of:
 - i. a phenolic antioxidant;
 - ii. a sulphur-containing antioxidant;
 - iii. an aminic antioxidant;
 - iv. a UV stabiliser, optionally comprising a hindered amine light stabiliser (HALS) and/or a UV absorber;
 - v. a metal carboxylate;
 - vi. a clarifying agent and/or a nucleating agent;
 - vii. a secondary inorganic antioxidant or reducing agent; and/or
 - viii. an inorganic acid scavenger.
9. The non-dust blend according to Claim 8, comprising a phenolic antioxidant and one or more of components ii. to viii.

10. The non-dust blend according to Claim 8 or Claim 9, wherein the phenolic antioxidant comprises a fully hindered phenolic antioxidant.

11. The non-dust blend according to Claim 10, wherein the fully hindered phenolic antioxidant comprises tetrakis(methylene(3,5-di-*t*-butyl-4-hydroxyhydrocinnamate) methane; 2,2'-thiodiethylene bis[3(3,5-di-*t*-butyl-4-hydroxyphenyl)propionate];; octadecyl 3-(3',5'-di-*t*-butyl-4'-hydroxyphenyl) propionate; 1,3,5-tris(3,5-di-*t*-butyl-4-hydroxybenzyl) isocyanurate; 1,3,5-trimethyl-2,4,6-tris(3,5-di-*t*-butyl-4-hydroxybenzyl)benzene; N,N'-hexamethylenebis[3-(3,5-di-*t*-butyl-4-hydroxyphenyl)propionamide]; 1,2-bis(3,5-di-*t*-butyl-4-hydroxyhydrocinnamoyl)hydrazine;; 2,2'-ethylenedibis[4,6-di-*t*-butylphenol]; butylated hydroxytoluene; and/or compatible mixtures of two or more thereof.

12. The non-dust blend according to any one of claims 8 to 11, wherein:

- the metal carboxylate comprises one or more of a metal stearate and/or a metal lactate;
- the clarifying agent and/or a nucleating agent comprises a metal benzoate and/or a sorbitol derivative;
- the secondary inorganic antioxidant comprises one or more of a metal hypophosphite, a metal thiosulphate, a metal bisulphite, a metal metabisulphite and/or a metal hydrosulphite; and/or

- the inorganic acid scavenger comprises one or more of a metal oxide, a metal hydroxide, a metal carbonate, a metal carboxylate, a metal salt and/or a hydrotalcite-like compound.

13. A process for forming the non-dust blend according to any one of claims 1 to 12, comprising the steps of:

- a. extruding or otherwise processing tris(2-t-butylphenyl) phosphite, optionally as part of a blend with one or more other additives, to provide a substrate;
- b. cooling the substrate; and
- c. optionally fragmenting the cooled substrate.

14. The process according to Claim 13, wherein step a. is carried out using an extruder, optionally a screw extruder.

15. The process according to Claim 14, wherein the extruder comprises a plurality of heating zones, optionally wherein the temperature of the, any or all of the heating zones is from about 30°C to about 250°C.

16. The process according to Claim 14 or Claim 15, wherein the extruder comprises a die maintained at a temperature which deviates by no more than $\pm 5^{\circ}\text{C}$ from the melt temperature of tris(2-t-butylphenyl) phosphite.

17. The process according to any one of claims 13 to 16, wherein the process additionally comprises the step of removing dust by sieving.
18. A process for forming the non-dust blend according to any one of claims 1 to 12, comprising cold extrusion and compaction.
19. Use of the non-dust blend according to any one of claims 1 to 12 to stabilise a polymer.
20. A stabilised polymeric composition comprising a polymer and the non-dust blend according to any one of claims 1 to 12.
21. The stabilised polymeric composition according to Claim 20, wherein the non-dust blend is present in an amount of from about 0.01 wt. % to about 5 wt. % based on the total weight of the stabilised polymeric composition.
22. An article manufactured from the stabilised polymeric composition according to Claim 21.