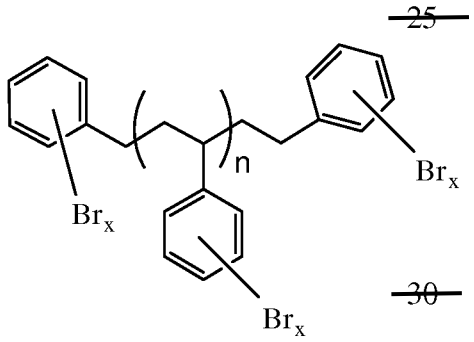
referred to as "devol extruder") operating at an elevated temperature into a flowing melt, and wherein the extrudate from the devol extruder is pelletized before or after the extrudate solidifies or is solidified. In conducting such a process, it is particularly desirable not only to effect the conversion of BAPC into a flowing melt by use of a devol extruder, but additionally to recover the solvent that is vaporized from the solution or slurry. Whether or not solvent recovery is utilized, the amount of BAPC in the solution or slurry is typically in the range of about 40 to about 80 wt%, and the extrudate from the devol extruder is pelletized before or after the extrudate solidifies or is solidified. Use of pelletizing equipment as described in International Publication Number WO 2008/011477, published January 24, 2008, is an effective way of producing pellets of this invention having the low dust properties.

[0013] In the pelletization methods of this invention, a "flowing melt" or a term of similar meaning such as "polymer flow" is referred to. As used herein, including the claims, such terms refer to the fact that the BAPC, when in operating extrusion devices such as single or twin screw extruders, cross head extruders, devol extruders, etc., becomes a melted mass and/or a sufficiently softened mass that will thenceforth proceed (*i.e.*, flow) through the remainder of the device (including any extension that may be added thereto) and a die disposed at the discharge end of the machine under the thrust provided within the machine by the screw(s) thereof. It matters not whether, strictly speaking, a true melt has been formed or whether the BAPC has merely been softened to such an extent that it will be caused to flow as just indicated.

[0014] Also provided by this invention is a pelletized binder-free flame retardant composition in which essentially the only component of the pellets is BAPC of the formula:



(I)

wherein n is an average number in the range of about 2.9 to about 3.9 (which when rounded off to whole numbers, becomes an average number in the range of about 3 to about 4), wherein each x is the same or different and is a whole number in the

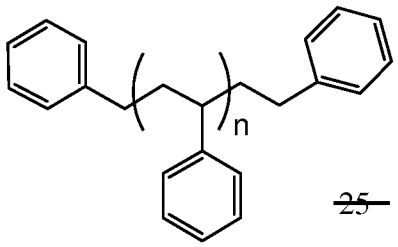
range of 3 to 5, the average number of all of the x's in the composition being in the range of about 3.50 to about 3.80 and the weight percent of bromine as determined by X-Ray Fluorescence Spectroscopy (XRF) in the polymer being in the range of about 73.4 to about 74.5. The BAPC may contain trace amounts of brominated toluene, typically in the range of about 400 ppm (wt/wt) to below the detection limit of about 20 ppm (wt/wt), and of brominated 1,3-diphenylpropane, typically in the range of about 0.2 to about 1.0 wt%.

It will be appreciated that formula (I) above is the same as the formula presented at the outset of this disclosure, except that formula (I) above is in an expanded form which illustrates the bonding among the groups in the molecule. It is to be understood that neither formula (I) above nor formula (II) hereinafter is intended to represent the actual spatial configuration of the molecules. Rather, the depiction of these formulas is merely for the purpose of facilitating an understanding of the composition of the molecules.

BAPC's and Their Precursors

[0015] The BAPC's constitute essentially the entire component of the blends which are pelletized pursuant to this invention.

[0016] To date, the only known method for producing these novel BAPC's is to brominate an aromatic polymer composition, *i.e.*, a distribution of low molecular weight styrene polymers of the formula:



(II)

wherein n is an average number in the range of about 2.9 to about 3.9 with the proviso that 1,3-diphenylpropane, a compound of formula (II) in which n is 0, optionally is present in this distribution in an amount of not more than about 1 GPC area %, and with the further proviso that this distribution optionally further contains toluene in an amount of not more than about 0.1 GPC area %, and wherein this distribution is further characterized by having an M_W in the range of about 650 to about 750, an M_n in the range of about 500 to

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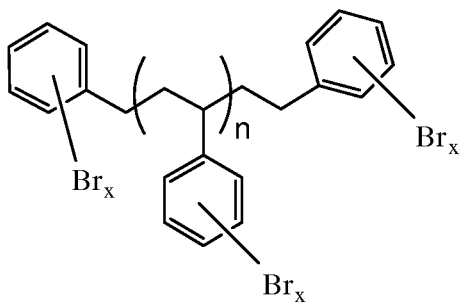

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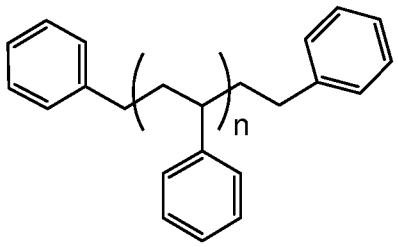

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