CLAIMS:

1. A blend of a petroleum feedstock and 1 -20 wt. % of plastic, based on the weight of the blend, with the plastic comprising polyethylene and/or polypropylene, and the plastic in the blend comprising finely dispersed micron-size particles having an average particle size of 10 micron to less than 100 microns, and the blend comprises less than 100 ppm chloride.

2. The blend of claim 1, prepared by the process of:

(a) heating a mixture of a petroleum based feed and the plastic together at a temperature above the melting point of the plastic but less than 500° F;

(b) recovering a product from step (a) and hot filtering the product to remove contaminants and product a filtered blend;

(c) heating the filtered blend to a temperature of 550 to 700° F (288 to 371° C) to thereby decompose PVC to produce a liquid product; and

(d) optionally treating the liquid product with a chloride removal guard bed catalyst.

3. The blend of claim 2, wherein the amount of plastic in the blend comprises from 1-10 wt. % of the blend, optionally the blend comprises from 1-10 wt. % of the high density polyethylene.

4. The blend of claim 2, wherein the plastic comprises low density polyethylene and/or high density polyethylene.

5. The blend of claim 2, wherein the plastic comprises multi-layer films comprising a metal barrier layer, polyethylene and/or polypropylene.

6. The blend of claim 5, wherein the metal barrier layer is comprised of aluminum.

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7. The blend of claim 2, wherein the plastic comprises polypropylene having an average molecular weight, M_w , in the range of 5,000 to 150,000, or polypropylene having an average molecular weight, M_w , in the range of 150,000 to 400,000.

8. The blend of claim 2, wherein the heating is conducted while stripping the liquid using gases such as nitrogen, hydrogen, steam, or light offgas from a conversion unit.

9. The blend of claim 2, wherein the finely dispersed particles have an average particle size in the range of 10-100 microns, optionally the finely dispersed particles have an average particle size in the range of 10 to less than 50 microns.

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10. The blend of claim 2, wherein the petroleum feedstock in the blend comprises vacuum gas oil, atmospheric gas oil, reformate, light cycle oil, heavy fuel oil, refinery hydrocarbon streams containing toluene, xylene, heptane or benzene, coker naphtha, C5-C6 isomerized paraffinic naphtha, FCC naphtha, hydrocracker bottom, gasoline, jet fuel, diesel or mixtures thereof.

11. The blend of claim 10, wherein the petroleum feedstock chosen is VGO.

12. The blend of claim 2, wherein the petroleum feedstock in the blend comprises gas oil, heavy reformate, light cycle oil, gasoline, or diesel.

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13. The blend of claim 2, wherein the blend comprises benzene, toluene, xylene or heptane.

14. The blend of claim 2, wherein the blend is at a temperature above the melting point of the plastic and is a hot, homogenous liquid blend.

15. The blend of claim 14, further comprising petroleum feedstock added to the blend.

16. A process for preparing a blend of plastic and petroleum comprising:

(a) mixing a petroleum feed and a plastic comprising polyethylene and/or polypropylene together and heating the mixture above the melting point of the plastic, but less than 500° F, while mixing;

(b) recovering a product from step (a) and hot filtering the product to remove contaminants and produce a filtered blend;

(c) heating the filtered blend to a temperature of 550° to 700° F (288° to 371° C) to thereby decompose PVC to produce a liquid product; and

(d) optionally treating the liquid product with a chloride removal guard bed catalyst.

17. The process of claim 16, wherein the heating is conducted at a temperature of 550°-700° F (288° to 371° C) with a residence time of 5-240 minutes at a final heating temperature.

18. The process of claim 16, wherein the heating is conducted while stripping the liquid using a gas such as nitrogen, hydrogen, steam, or light offgas from a conversionunit.

19. A process for preparing a blend of plastic and petroleum comprising: a) mixing a petroleum feed and a plastic comprising polyethylene and/or polypropylene together and heating the mixture above the melting point of the plastic, but less than 500° F, while mixing; b) recovering a product from step (a) and hot filtering the product to remove contaminants and produce a filtered blend; and c) treating the liquid product with a chloride removal guard bed catalyst at a temperature of 250° to 700° F (121° to 371° C) to thereby decompose PVC to produce a liquid product.

20. The process of claim 19, wherein the treating is conducted at a temperature of 250°-700° F (121° to 371° C) with a residence time of 5-240 minutes at a final treating temperature.