

CLAIMS

What is claimed is –

1. A method of recycling a plastic waste comprising:

5 (a) feeding a quantity of a PET-containing reclaimer colored plastic-containing mixture and/or MRF colored plastic-containing mixture separated from said plastic waste to a chemical recycling facility; and

(b) depolymerizing in said chemical recycling facility at least a portion of said PET-containing reclaimer colored plastic-containing mixture and/or MRF colored plastic-containing mixture.

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2. The method of claim 1, wherein said quantity of colored plastic-containing mixture comprises at least 1 and/or not more than 99.9 weight percent PET on a dry basis.

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3. The method of claim 1, wherein said quantity of colored plastic-containing mixture comprises at least 1 weight percent non-clear PET on a dry basis.

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4. The method of claim 1, wherein said quantity of colored plastic-containing mixture comprises not more than 10 weight percent halogens on a dry basis.

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5. The method of claim 1, wherein said quantity of colored plastic-containing mixture comprises at least 1 weight percent and/or not more than 90 weight percent polyolefins on a dry basis.

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6. The method of claim 1, wherein said quantity of colored plastic-containing mixture comprises at least 0.1 weight percent non-clear PET and/or other colored plastic material on a dry plastic basis.

7. The method of claim 1, wherein said quantity of colored plastic-containing mixture further comprises at least 0.1 weight percent PVC, nylon, and/or copolyesters on a dry basis.

5 8. The method of any one of claims 1 to 7, wherein said quantity of colored plastic-containing mixture is fed directly to a solvolysis facility within said chemical recycling facility without undergoing a preprocessing and/or separation process.

10 9. The method of any one of claims 1 to 7, further comprising feeding at least a portion of said quantity of colored plastic-containing mixture to at least one density separation stage before said depolymerizing (b), thereby producing a PET-enriched stream that is fed into a solvolysis facility within said chemical recycling facility.

15 10. The method of claim 9, wherein said at least one density separation stage comprises at least two density separation stages.

20 11. The use of a PET-containing colored plastic-containing mixture as a feedstock to a chemical recycling facility.