

New plastic liquefaction process

Chiyoda Corp., Japan, offers next-generation technology for liquefaction of plastic wastes. The new process facilitates reuse of plastic wastes from household refuse as fuel.

In the new method, crushed plastic waste is fed to a dechlorination unit where PVC and PET are thermally degraded into hydrogen chloride, terephthalic acid, etc. These gaseous components are separated from the melted liquid plastic and sent to an incinerator for safe disposal. The melted plastic waste is transferred to a thermal cracking reactor where it is further heated and converted to vapour phase hydrocarbons and residue. The vapour phase hydrocarbons are charged to a distillation column and separated as cracked gas, light oil, a middle distillate and heavy oil.

A portion of the middle distillate is recycled to the thermal cracking reactor as vapour phase through the heating furnace. The heavy oil is mixed with residue from the bottom of the thermal cracking reactor and the mixture is used as a fuel. The separated light oil can be used as a feedstock for petrochemical plants or as fuel oil. Cracked gas obtained at the top of the distillation column is cooled and separated from the light oil and transferred to the incinerator. *Contact: Chiyoda Corp., No. 31-19, Shiba 2-chome, Minato-ku, Tokyo 105, Japan. Tel: +81 (3) 3456 1211; Fax: +81 (3) 3456 1263.*

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