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CFTRI completes study on PET evaluation for food contact applications

13 August 2019 | News | By Manbeena Chawla

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CSIR-CFTRI had conducted a study with respect to 'Evaluation of PET bottles for migration studies for food contact applications' for PET Packaging Association for Clean Environment (PACE), New Delhi and the Final Report was handed over by DG-CSIR in a brief function held at CSIR HQ recently.

There is a widespread belief that consumption of contents stored to PET bottles may cause adverse effects including general toxicity and disruption of endocrine systems. The overall aim of this work component is to assess the implications of contents (water) stored in PET bottles.

To investigate whether PET bottles contribute to Endocrine Disruption, water stored in PET bottles (alongside water stored in glass bottles as a reference) was administered to experimental male and female rats for 30 days and 60 days and effects on their blood hormone levels were measured by enzyme linked immunosorbent assay (ELISA). The experimental male and female rats exhibited comparable blood hormone levels when given water stored in PET bottles and glass bottles under same test conditions. Thus, water stored in PET bottles did not cause any Endocrine Disruption activity.

However, the results observed in the laboratory animal models need to be measured with utmost care while extrapolating to human subjects.

Also, the composition analysis on the PET bottles revealed that PET bottles are made of copolymers of polyethylene terephthalate and polyethylene iso-phthalate having a ratio of 100:1.