Relevance:

In news

What is the key characteristic of Oxo-degradable plastics?

- (a) They are compostable and yield biomass during decomposition
- (b) They are derived from renewable biomass
- (c) They contain additives that help break them into smaller fragments, leading to microplastic leakage
- (d) They are completely biodegradable in the environment

- **Oxo-degradable plastics are not truly biodegradable but instead fragment into microplastics due to the presence of chemical additives. These additives enable oxidation, which accelerates the breakdown of plastic under exposure to heat, light, and oxygen**. However, instead of decomposing into harmless organic matter, they **disintegrate into microplastics**, which persist in the environment and contribute to long-term pollution.
- Unlike **compostable plastics** (which degrade into biomass, water,

and carbon dioxide), **oxo-degradable plastics do not fully break down** and instead create **microplastic contamination in soil, water bodies, and marine ecosystems**. They are often mistaken as a solution to plastic waste, but their environmental impact remains a major concern.

- Due to these issues, many countries and environmental organizations **discourage or ban** the use of oxo-degradable plastics, advocating instead for **biodegradable or compostable alternatives** that completely degrade into **natural elements** without harmful residues.

Solution: C