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1.1 General

Earth is known as water planet, with over 97% of its water in the oceans, ~2% locked up in glaciers and the remaining ~1% as fresh water. Water is one of the most essential ingredients to generate and sustain all forms of life. Unfortunately, many of the water resources are heavily polluted today due to reckless and unchecked human activity. If the deterioration in the quality and quantity of water continues at today’s rate, a stage will be reached when “water is everywhere but not a drop to drink”.

Water is a basic requirement for all industrial, domestic and commercial activities. The wastewater generated from different activities contains various contaminants that are harmful to all kinds of flora and fauna on the planet. Common water pollutants found in ground and surface waters include textile dyes, hydrocarbons, haloalkanes, alcohols, carboxylic acids, aromatic compounds, detergents, agrochemicals like insecticides and herbicides, inorganic compounds like heavy metals such