

TECHNICAL TUESDAYS

TOPIC: **Glossary of sustainable terminology and concepts**

REF: TT/ SEP 2016/ WK 1

Aquatic toxicity:

It is the adverse effect of a toxic substance on marine life.

The concentration of the substance in water that can cause lethal damage to aquatic organisms is called the “lethal concentration” (LC). The dosage at which 50% of the fish die in a test is called LC50.

Bio-accumulative:

Chemicals that are soluble in water yet accumulative in the fat tissues of animals are called bio-accumulative chemicals.

Example: Lead, Mercury

Bio-degradation:

It is the degradation of organic matter by microorganisms to carbon, hydrogen and oxygen.

Biodegradation is nature's way of recycling waste or breaking down organic matter to nutrients that can be used by other organisms.

Biological oxygen demand (BOD):

It is the amount of dissolved oxygen used by microbes and bacteria in water to breakdown organic pollutants present in effluents.

Chemical oxygen demand (COD):

It is the amount of dissolved oxygen used by microbes and bacteria in water to breakdown both organic & inorganic pollutants present in effluents.

The higher the COD concentration of effluents, the greater is the dissolved oxygen that is used by pollutants, thereby affecting marine life. COD is expressed in mg/l, indicating the mass of dissolved oxygen consumed per liter of solution.

**Ecology:**

It is the study of organisms and their relationships with their surroundings.

Physical hazards:

These are chemicals that can cause physical harm to people, properties and processes.

Example: explosives, flammables

Sustainability:

Sustainability is meeting the needs of the present generation without compromising on the ability of future generations to meet their own needs.

Wishing you a great week ahead!

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