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① What is Plastics ?

Answer

Plastics :-

→ Intro

Plastics are organic molecules mostly consists of carbon atoms. These C-atoms are sometimes tightly packed bonded forming 3-D network or sometime linear bonding is present. On the basis of such bonding difference plastics varies in structure and features.

→ Term Origin :

The term plastics is derived from Latin word "Plasticus" means "capable of moulding".

→ Definition :

Plastic is an organic molecule, capable of moulding and reshaping.

→ Features:

→ Plastic is flexible in nature and is good insulator of heat and electricity.

→ It is mostly heat-resistant up to

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288°C is bearable. But not all Plastics.

→ It is corrosion-resistant and cannot be rotted.

→ It is non-magnetic in nature

→ It is light in density and is water-resistant

→ It can be recyclable and reshaped under high temperature

Types of Plastics

Theroseetting Plastics

⇒ This type of plastics after reshaping or moulding on high temperature can never be changed.

⇒ It forms a 3-D network which cannot change in shape again

⇒ It is chemically bonded and is tightly packed bonded

Thermoplastics

This type of plastics can be heated and cooled, softened or hardened and can be remoulded and reused.

⇒ It is slightly branched and is linear carbon bonding

⇒ It consists of weak Vander Waal forces.

Hazards:

1) Plastic consist of micro-molecules which usually affect human beings by using plastics, either by eating or drinking in it.

② It uses approximately 4% of plant oil while manufacturing which leave great impact on plant resource consumption

③ It's presence in water bodies disturbs marine ecosystem by blocking sunlight which causes immense growth of phytoplankton and algae.

④ Plastic presence in landfills cause leaching in the ground (soil) which directly affect agriculture and crops production.

⇒ Conclusion:

Hence, it can be said that plastics are although organic molecules with alot of good features but it can be harmful for the environment due to its negative features.

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Q What are fertilizers?

Answer

Fertilizers

Fertilizers are organic, naturally or synthetically produced materials, which enhances the growth of plants and crops.

Features and Nature

Fertilizers helps the plants to grow on a large scale and produce food for its own growth. There are total 16 elements, which are really essential for the growth of plants. It includes;

Potassium

Sulphur

Nitrogen

Magnesium

Calcium

Classification of fertilizers:

→ On the basis of Production of nutrients:

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Straight Fertilizers:

This sort of fertilizers produce only one kind of element, such as; either Nitrogen or sulphur or any other.

Mixed fertilizers

This kind of fertilizers produced two or more elements in the soil, essential for the growth of plants. E.g: "Dawaar or Dakhair by Engrofertilizers"

→ On the basis of Mode of Operation:

Direct Fertilizers

A kind of fertilizers which are directly introduced into the plants or are absorbed by the stem and roots of plants.

E.g:

Ammonium, Sulphate, Nitrate.

Indirect fertilizers

Those kind of fertilizers which are introduced into the soil, and then plants absorbed essential elements from the soil.

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→ On the basis of Importance

Macronutrients:

These are required in large quantity and are of immense importance to the plants growth.

Nitrogen
Phosphorus
Potassium

Micro nutrients

These are known as minor elements. It is required in less amount.

Magnesium
Sulphur
Calcium

Impacts of Fertilizers On Environment:

① Soil Pollution

Due to increase use of fertilizers in the soil, soil become acidic and alkaline materials (naturally produced) in the soil started to become acidic or eliminate. It also

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causes production of harmful substance due to breakdown of organic molecules (fertilizers). Hence, these factors make soil unfavourable for the growth of plants and crops.

② Water and Ground Aquifers Contamination.

These induced fertilizers usually start leaching into water bodies. This starts to contaminate water and ultimately human bodies. They make water acidic and unfavourable for drinking.

③ Eutrophication

The disposal of nutrient containing fertilizers particularly "Nitrogen" element in to water bodies, leads to eutrophication. This induces the growth of algae, blights and phytoplankton. They block the sunlight, ultimately disrupting the growth of marine ecosystem.

=> Conclusion

① Fertilizers - an important

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material for plants growth but is harmful for other living organisms if it is not used properly.

Therefore, it use should be properly regulated by the authorities.