biodegradation

Breakdown of a substance catalysed by enzymes *in vitro* or *in vivo*. This may be characterized for purposes of hazard assessment as:

1. Primary. Alteration of the chemical structure of a substance resulting in loss of a specific property of that substance.
2. Environmentally acceptable. Biodegradation to such an extent as to remove undesirable properties of the compound. This often corresponds to primary biodegradation but it depends on the circumstances under which the products are discharged into the environment.
3. Ultimate. Complete breakdown of a compound to either fully oxidized or reduced simple molecules (such as carbon dioxide/methane, nitrate/ammonium and water. It should be noted that the products of biodegradation can be more harmful than the substance degraded.

Source:
PAC, 1993, *65*, 2003 *(Glossary for chemists of terms used in toxicology (IUPAC Recommendations 1993))* on page 2020
PAC, 1992, *64*, 143 *(Glossary for chemists of terms used in biotechnology (IUPAC Recommendations 1992))* on page 148