

The Role of Chemical Technologies in the Processing of Ecological Domestic Waste

***Halkiopoulos Newja**¹ and **Namriub Safie Paul**²

¹Department of Education, Division of Malaybalay City, Philippines

²Yaba College of Technology, School of Technical Education, Vocational Education Department, Nigeria

Abstract

Environmental policy is rapidly being implemented in the economic strategy of developed countries and large companies. It includes a system aimed at rational use of natural resources, protection, and its restoration in the country and abroad. This policy is carried out both at the level of the country and at the level of companies that are committed to follow these standards in their development strategy. Due to this, the European Union has recently strengthened control not only of product quality, but also of its environmental friendliness. There are two different approaches to technical innovation in chemistry. The first is that new technologies and processes reduce the cost of eliminating sources of pollution to a minimum level, and the second is that new technologies (the right way to approach this issue) ensure the radical elimination of the cause of actual or potential chemical problems. The effective use of catalysts in the chemical industry is considered very effective, as they reduce energy costs and simultaneously increase the selectivity of processes. Currently, 80% of catalysts are used in various technological processes. The significant environmental impact of intermediates can be seen in the catalyst in the production of acrylic acid. Acrylic acid is effectively used in the production of dispersions, varnishes, superabsorbents and other products. As a result of research carried out in the last 25 years, the amount of unnecessary intermediate products has been reduced to 75%. The catalyst is also used effectively to obtain products for the desired purposes from the initial raw materials. The reduction of the amount of waste also reduces the energy consumption. Dichloroethane, an important semi-product in the production of vinyl chloride, is obtained by oxidation of ethylene in the presence of hydrochloric acid and air. This process leads to the formation of CO, chlorohydrocarbons. To reduce the amount of such gases, it is advisable to use oxygen as an oxidizer.

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*Corresponding author

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