

This work concerns to characterize the effluent, a by-product of an Algerian oil mill, for its valorization. A microbiological study certified the healthiness of the effluent, followed by various means of analysis such as their observation under the microscope, water chemistry, thin layer chromatography, infrared and the ultra-violet spectrophotometry. The results of analyses suggest that the effluents is biodegradable (86.54 %) and present in form of an emulsion of type I i.e., oil-in-water mouthful of soap (15.5 g/L), bathing in conservatives. The results of a traditional analysis inherent in the soap corroborated these results. Moreover, a viscoplastic rheology was surrounded by the determination of various viscosities of the effluent, whose stability is ensured by the presence of contaminants, revealed by atomic absorption spectrophotometry