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Study of frying oil use in biodiesel production, applying techniques of environmental management in university city UEMS/UFGD

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The frying oil is gaining prominence due to growing demand for biofuels, as raw material appears as an alternative energy lowering environmental impact. The difficulty of an effective oil gathering in micro and macro sphere to supply the biodiesel production from this raw material is evident. Lack of application of a standard operating procedure in the oil handling in commercial scope, affects its quality, compromising the collection intended for biodiesel production and even more for food consumption. Through three feeding points in the university town, frying oil samples were collected named A, B, C, which were physic-chemically characterized. In the establishments were applied an evaluation questionnaire about the handling and use of oil and then was elaborated a training with application of a standard procedure in order to minimize impurities in the raw material. In parallel, gathering points were set in the university town (UEMS and UFGD), generating socio-environmental awareness and highlighting the importance of conscious disposal of household waste, thus promoting the importance of an efficient collection not only of commercial oils, but also of household. The oil collected in the feeding sites presented very different physic-chemical characteristics from the commercial soybean oil, mainly in the parameters of acidity, water content, fat and impurities, making them unsuitable for food and also for the biodiesel production, which strengthens the idea of awareness about the effective collection.

Biography

Carmem Cicera Maria da Silva Campelo is a bachelor's in chemistry from Universidade Federal do Piauí (2003), has Master in Chemistry at the same institution. She is a professor at the State University of Mato Grosso do Sul. Currently she is at a phd student at program at the Faculty of Exact Science and Technology (FACET) at the Federal University Grande Dourados (UFGD). Her experience is based on chemistry with focus on Physical Chemistry, acting in cenostigma macrophyllum, lupeol and biodiesel.

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