

The Handling of Soapstock and Wash Water from Chemical Neutralisation Plants

Klaus-Peter Eickhoff

Westfalia Separator Food Tec GmbH, Oelde / Germany

Two secondary streams are produced in chemical neutralization plants, namely the soapstock and wash water. The two fractions are separated from the oil in continuous-mode centrifuge installations. Although the soapstock undisputedly has a certain value, its existence is seen rather as a disadvantage because it usually has to be treated prior to further usage which involves additional work input. Depending on the type of further processing effluent is obtained which has to be disposed of. The wash water likewise must be treated if it has to be disposed of separately from the soapstock.

These circumstances are considered a disadvantage by many refineries which often proves to be the decisive influencing factor for many refineries when opting for physical refining. However, chemical refining does indeed also offer advantages in terms of the operating reliability needed to achieve good refined oil qualities. Further, some oil sorts have to be exclusively chemically refined such as cottonseed oil, fish oil and peanut oil.

Today, technically sophisticated treatment processes are available for soapstock and wash water which, combined with a number of new concepts, make the perceived problem significantly more bearable and continue to uphold the appeal of chemical refining. This paper deals with chemical refining issues in-depth and is intended to convey new potential aspects and ideas.