ABSTRACTS

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Commercial Extraction Solvents

Well purified and odorless special gasolene, boiling between 42 and 105° C. completely, is said to be the best solvent for use in the commercial extraction of oils and fats. The ordinary grades require careful purification with 66° sulfuric acid for the removal of aromatic hydrocarbons, and when so purified, will extract only the pure oil, free from impurities. Such a purified solvent may be recovered completely. Of the chlorinated solvents ethylene dichloride is preferred as yielding better products than trichlorethylene. Carbon tetrachloride has been abandoned, because of its tendency to hydrolyze, forming hydrochloric acid, with consequent corrosion of metallic equipment. Carbon disulfide has also been discarded because of its fire hazard and deleterious effect on the health of workmen. *Seifensieder-Ztg.* 56,370-2 (1929).

When linoleic acid was heated in a vacuum in the presence of active nickel, the specific gravity and index of refraction of the acid were increased and the iodine number diminished. These changes occurred only to small extent when the acid was heated without the active nickel. Upon heating the ethyl ester of the acid in a vacuum at 225° C. for five hours, the thiocyanogen value remained practically unchanged, the iodine value decreased, whereas the gravity, refraction and dispersion increased. No changes were recorded in similar treatment of the ethyl ester of oleic acid. The great changes in soya bean oil on heating with nickel are attributed to the glycerides of linoleic acid. *Chem. Weekbl.* 26,566-7 (1929) *Chem. Abstr.* 24,742 (1930).

A patent has been issued covering a process of deodorizing malodorous animal and vegetable oils, by mixing the material with 20% of its volume of water, heating with agitation to the boiling point of water, evaporating the water and heating to 115-20° C. to remove the last traces of water. U. S. Pat. No. 1,737,731.

"Doctored" linseed oil is produced by a method of removing mucilage and foots before boiling. A small portion of this "doctored" oil is added to the main body of oil in preparing boiled linseed oil by the steam-heating process. The oil should be permitted to stand two months after the addition of the "doctor" to facilitate settling of the foots and mucilage. *Ind. Chemist* 5, 403-5 (1929), *Chemical Abstracts* 24, 514 (1930).

Fatty glycerides, such as coconut oil, for example, may be saponified directly by dry alkaline carbonates in the presence of lipolytic substances such as sulfonated castor oil products, isopropylnaphthalenesulfonic acid or octohydroanthracenesulfonic acid. Brit. Pat. No. 308,603.

Substantially colorless sulfonated oils, fats, fatty acids and waxes may be prepared by sulfonating in the presence of hydrogen peroxide, persulfates, percarbonates or other suitable bleaching agents. U. S. Pat. No. 1,734,050.

A recent patent proposes to hydrogenate unsaturated oils and fats by adding them in emulsified form to cultures of hydrogen-generating bacteria. Ger. Pat. No. 482,919.

Castor oil can be made soluble in mineral hydrocarbons by heating it with oleic acid or stearic acid to 220-230° Centigrade, in vacuo. Ger. Pat. No. 482,634.

Developed grease products for use in treating textiles, for cutting lubricants and for tanning, may be prepared from a base obtained by treating a mixture of rosin and castor oil with hydrogen under pressure. Ger. Pat. No. 482,965.

Rancidity of vegetable oil used in coating compositions, lacquers and the like, may be prevented by the addition of magnesium oxide in the proportion of 2% of the weight of the oil.