Abstracts

Soaps

Edited by
ARMOUR AUXILIARIES LIBRARY

LINSEED AND CASTOR OILS. Herbert Kranich. *Soap Sanit. Chemicals 20,* No. 3, 27-8 (1944). Linseed oil in amts of 15-25% blended with other oils had no effect on the finished soaps and in some cases could improve them, especially the figging in winter months. Odor difficulties have been overcome by "odor neutralizers" and perfumes. Up to 25% castor oil could be used with coconut oil in manuf. of potash toilet soap. The castor oil improved rinsability of the finished product, reduced the so-called "bite" of coconut soaps and it assisted in the sapon. when blended with other vegetable oils and fats. The disadvantages of the linseed and castor oils raw materials are that they make paste and hard soaps softer and they are higher priced than common soap oils. (*Chem. Abs.*)

SOAP FROM TURKEY-RED OIL AND FROM CASTOR OIL. A. M. Serbryakov. *Tekstil Prom.* 1943, No. 1/2, 24-5. Castor-oil soap is made from castor oil 100, dry NaOH 15, dry Na_2CO_3 2.5 kg. The Na_2CO_3 is added toward the end of the boiling. To prep. "alizarin soap" (i.e., soap from Turkey-red oil) place 20 kg. of castor oil in a barrel provided with a spigot at the bottom. Add concd. H_2SO_4 7.5 kg. in small fractions over a period of 5-6 hrs. with const. stirring. The temp. should not rise above 25-30°. On the following day drain excess acid and wash with 60 l. of H_2O. The next day wash twice with a 20% soln. of NaCl, using 60 l. each time. Allow the H_2O to settle out and drain. Neutralize with Ba_2CO_3 soln. (2.7 kg. in 34 l. H_2O). These soaps are effectively used in the wool mills. (*Chem. Abs.*)

THE USE OF ALKALIES FROM APATITE IN THE MANUFACTURE OF SOAP. V. N. Savvina and M. A. Roxhdestgenskaya *Sbornik Rabot Vesoyuz. Tsentral. Nauch.-Issledovatel. Inst. Znirov. Khim. i Tekh. Moyushchikh Sredstv. 1941,* 92, 111. The substitution KOH for 40% of the NaOH in the production of soap from rosin, naphthenes and sunflower-seed oil did not affect the detergency of the soap. K decreased the hardness and the soly. of soap made from hardened fat. The effects of mixed NaOH and KOH in proportions in which they are present in the alkalies recovered from the nephelite wastes from apatite indicated that alkalies from apatite can be added to paste soaps only if mixed with ordinary NaOH, can be used in hard soap only if NaCl is used in the salting out, and can be used in the production of liquid soap, they are not recommended for toilet soap because they form a film on the soap and cause some difficulties in stamping the soap. (*Chem. Abs.*)

WETTING POWER IN SODIUM SOAP-MINERAL OIL SYSTEM. Wilfred Gallay, Ira Puddington and James S. Tapp. *Can. J. Research 21B,* 230-5 (1943). Measurement of the contact angle of various mineral oils on surface of Na soaps showed no appreciable variation with oils of varying polarity. Oils of low viscosity index show a lower interfacial tension against water, and greater emulsion stability. Mineral oils which show little tendency to wet and spread on a soap surface possess high spreading power on soap surfaces previously wet with glycerol. As a result, mineral oils are absorbed rapidly by a soap-glycerol gel with subsequent displacement of glycerol. Droplets of displaced glycerol are not readily visible but can be made so by the use of methylene blue. Data are shown for some quant. measurements of this preferential wetting action. Greases having a Na soap base made from fats and alkali show displaced droplets of glycerol when treated with mineral oil, whereas these soaps made from fatty acids and alkali do not. Thus the presence of glycerol in a grease having Na soap base enables a non-polar oil to wet the soap.

THE SPOTTING AND DISCOLORATION OF SOAPS. Dr. Sadgopal. *Soap, Perfumery & Cosmetics 17,* 176-9 (1944). The various causes which may be responsible for the darkening and spotting of soaps may be classified as follows: quality of raw materials, perfumes, dye stuffs, handling and care of plant and equipment, metallic contact during the various stages of manufacture, action of additional medicaments and special agents, presence of catalysts in hydrogenated fats, action of moisture on the soap, action of atmospheric air on the soap, action of light on the soap, and action of temperature on the soap. Each of these causes is discussed in detail and tables are given on the darkening effect of perfumes, dyestuffs, metals, special agents, and various hydrogenated oils. The conclusions reached stated that air, moisture and light are the primary agents in darkening of soaps but the other agents were also factors.

PATENTS

PROCESS FOR DEDUSTING COMMINUTED SOAP. Bernard Maxwell and Charles Atwood to Lever Bros. *U. S. 2,328,568.* An apparatus is described which separates excessively fine soap particles from bulk comminuted soaps without undue loss of packageable soap by powdering.

METHOD OF PREPARING DETERGENT COMPOSITIONS. Edward Robinson to Diamond Alkali Co. *U. S. 2,333,443.* A method is described for obtaining a dry, granular composition of an alkali metal silicate and an alkali metal phosphate useful for detergent purposes such as in cleansing, washing, degreasing, and scouring operations.

WASHING AND CLEANING COMPOSITION. Anton Volz. *U. S. 2,335,466.* A washing and cleaning composition which does not produce deposits and turbidity in hard waters, comprising a potassium soap in which is incorporated the reaction products resulting from the reaction between phosphoric acids, containing less water in the molecule than orthophosphoric acid, and aliphatic amines, selected from the class consisting of the simple aliphatic amines and aliphatic amines substituted with hydroxyl, aryl, aralkyl, and cycloalkyl groups.

FATTY ACIDS VALUABLE FOR SOAP MAKING. Markische Seifen-Industrie. *Ger. 734,273.* The fatty acids are obtained from hydrocarbon oxidation products contg. 30-60% of saponifiable components. The fractions b. 150-290° are driven out by steam distn. at 2-8 mm. Then the remaining carboxylic acids are freed of unsaponifiable constituents in the usual way. (*Chem. Abs.*)