ABSTRACTS

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Method for Unsaponified Fat

The following method is offered for the determination of unsaponified fat in soaps: dissolve a five to ten gram sample in an Erlenmeyer flask at 50° in 80 cc. alcohol and 70 cc. water in which 1 gram of sodium bicarbonate is dissolved, to neutralize any free sodium hydroxide. Cool to room temperature, extract three times in a separatory funnel with 700 cc. petrolic ether (30-50°) and shake with 15 cc. 0.1 Normal soda and 15 cc. alcohol, then three times with 50% alcohol. Filter through ignited sodium sulphate into a weighed Erlenmeyer flask, evaporate dry at 100° and weigh the residue of free fatty acids, unsaponifiable matter and unsaponified fat. Dissolve in 20 cc. neutral alcohol and titrate with 0.1 Normal sodium hydroxide for free fatty acids; add 1-2 cc. ten Normal potassium hydroxide and saponify under reflux for one-half hour. Add 18 cc. water, cool and shake three times with 30 cc. petrolic ether; wash with 10 cc. of 50% alcohol three times and filter, dry and weigh as before, obtaining the unsaponifiable matter. Subtract the free acids plus unsaponifiable from the total residue to find the unsaponified fat. *Seifensieder-Ztg.* 56, 245-6 (1929).

Rosin may be converted into alpha-abietic acid by treatment with oxalic acid at 140-160°. The alpha-abietic acid is then combined with an unsaturated acid of the oleic series such as oleic acid by treating an equimolecular mixture of the two with a catalyst such as zinc chloride at 160-200°. The entire process may be carried out on the rosin dissolved in the fatty oil and the proportions may be adjusted to the quantities desired for the production of soap later on. The resulting products may be converted into soaps which are claimed to be entirely stable even with a 40% rosin content and which contain 4% more water than a normal soap. Fr. Pat. No. 665,425.

It is claimed that the keeping qualities and aroma of butter and margarine are improved by the addition of alkaline lactates which have been purified by the elimination of volatile acids and other impurities such as iron. Brit. Pat. No. 308,405.

Kaufmann's thiocyanate number for linseed oil is shown to represent a sharply defined addition of the thiocyanogen group to certain unsaturated fatty acids. By calculation from results obtained from all forms of addition products and elimination of those contrary to facts, it is shown that one molecule of linolenic acid adds two molecules of thiocyanogen and oleic and linolic acids add one only each. *Z. angew. Chem.* 42, 73-76 (1929) *Chemical Abstracts* 24, 253 (1930)

Fats having the same fatty acids may differ in the constitution of the glycerides. With a mixture of alcohol and acetone a solid fat can be divided into a liquid and a solid part. The index of refraction, iodine number and Crismer number (demixing temperature of the fat and aniline) can be determined on the two parts and the fats thus be identified as to their origin. *Rec. trav. chim.* 48, 1058-60 (1920).

In extraction analysis of spent bleaching earths, complete extraction is impossible on account of adsorption of oil by the earth or charcoal, so that the result should be reported in such manner as to designate the solvent used. High test gasolene is the preferred solvent, being said to extract the least amount of impurities along with the oil. When the earth is fresh and the extraction properly conducted with a preferred solvent the extracted oil is as light as or lighter than the original oil and is free from any traces of the bleaching earth.

In an investigation of the film properties of China wood oil a dried film was stored between glass plates in the absence of light, for a period exceeding two years. After the expiration of fifteen months the granular particles and drops of liquid were noted in the film. After a period of twelve months more small crystals were noted in the liquid portion of the film. These crystals are believed to consist of beta-eleostearine. *Farben-Ztg.* 34, 2941-2 (1929).

Prices

Candles, adamantine 6s 16 oz.			
20-set cases	set.	.14½	.15¾
40-set cases	set.	.14	.14½
Candles, paraffin, cs., 14 oz., case of 40 sets	set.	.10	.10¼
6s 14 oz., case of six cartons containing 36 sets	set.	.11	.11¼
6s 12 oz., 40 set cases	set.	.09	.09¼
6s 12 oz. cases of six cartons containing 36 sets	set.	.10	.10¼
Patent ends	set.	.17¾	.18
Stearin 6s 16 oz., plain, cases	set.	.16¾	.17
Castor, No. 1, bbls.	lb.	.13¼	.13½
No. 3, bbls.	lb.	.12¾	.13
Chinawood, bbls. or drs.	lb.	.12½	.12¾
Coast, tanks, spot	lb.	.10½	.10¾
Futures	lb.	.10½	.10¾
Coconut, Ceylon grade, bbls.	lb.	.08	.08¼
Coast, Tanks, Domestic White	lb.	.06¾	.06⅞
Cochin grade, bbls.	lb.	.08½	.08¾
Manila, bbls.	lb.	.03	.08¼
Tanks, N. Y.	lb.	.07⅛	.07¼
Fatty acids, mill, tanks	lb.	.10¾	nom.
Cod, Newfoundland, bbls.	gal.	.56	.64
Copra, bags, coast	lb.	.04⅜	—
Corn, tanks, mills	lb.	.07⅞	.03
Bbls., New York	lb.	.10	nom.
Refined, bbls.	lb.	.12½	nom.
Fatty acid	lb.	.08¾	nom.
Cottonseed, crude, tanks, mills	lb.	.07½	nom.
P. S. Y.	lb.	.08⅜	.08⅝
Fatty acids, mill, bbls.	lb.	.09¼	—
Degras, domestic, bbls.	lb.	.04¼	.05½
English, bbls.	lb.	.04½	.05
German, bbls.	lb.	.03½	.04
Neutral, domestic, bbls.	lb.	.07¾	.09½
English, bbls.	lb.	.08	.09
German, bbls.	lb.	.07	.07½
Greases, choice white, bbl. N. Y.	lb.	.07	.08¾
Yellow	lb.	.06¼	.06⅜
Brown	lb.	.06⅛	.06¼
House	lb.	.06¼	.06⅜
Herring, coast tanks	gal.	—	nom.
Horse, bbls.	lb.	.09½	nom.
Lard, city, tierces	lb.	.10¼	—
Compound, tierces	lb.	.10½	.10¾
Middle Western, tierces	lb.	.10⅞	—
Neutral, tierces	lb.	.12	—
Prime Western, tierces	lb.	.11	—
Lard oil, No. 1, bbls.	lb.	.10½	—
No. 2, bbls.	lb.	.10¼	—
Extra bbls.	lb.	.12	—
No. 1, bbls.	lb.	.11	—
Winter strained, bbls.	lb.	.12¼	—
Prime, bbls.	lb.	.13½	—
Linseed Oil, boiled, tanks	lb.	.1360	—
Car lots, bbls.	lb.	.1440	—
Less car lots, bbls.	lb.	.1480	—
Less than 5 bbls.	lb.	.1520	—
Double boiled, less than 5 bbls.	lb.	.1550	.1580
Raw, tanks	lb.	.1320	—
Car lots, bbls.	lb.	.1400	—
Less car lots, bbls.	lb.	.1440	—
Less than 5 bbls.	lb.	.1480	—
Refined, bbls.	lb.	.1470	.1510
Varnish grades, bbls.	lb.	.1490	.1530
Linseed cake, bags	ton	41.50	—
Meal, bags	ton	49.50	—
Menhaden, crude, tanks, Baltimore	gal.	.43	.45
Light pressed, bbls.	gal.	.64	.66
Yellow bleached, bbls.	gal.	.66	.68
White bleached, bbls.	gal.	.69	.71
Mustard, bbls.	gal.	.90	—
Neatsfoot, cold pressed, bbls.	lb.	.17⅝	—
Extra, bbls.	lb.	.11⅛	—
No. 1, bbls.	lb.	.10⅝	—
Pure, bbls.	lb.	.13⅛	—
Oleo, No. 1, bbls.	lb.	.12¼	—
No. 2, bbls	lb.	.10⅞	—
Olive, denatured, bbls. N. Y.	gal.	.92	.95
Shipments	gal.	.90	—
Foots, bbls.	lb.	.08	nom.
Shipments	lb.	.07⅞	—
Edible, bbls.	lb.	2.00	2.40
Palm, Lagos, casks, spot	lb.	.07⅝	.07¾
Shipments	lb.	.07⅜	—
Niger, casks, spot	lb.	.07⅛	—
Shipments	lb.	.06⅞	.07
Palm Kernel, pkgs.	lb.	.07¾	—
Tank cars	lb.	.07¼	—
Peanut, crude, bbls.	lb.	.09¼	.09¾
Mills, tanks	lb.	.07¼	—
Refined, bbls.	lb.	.12½	.13
Perilla, bbl.	lb.	.13	nom.
Poppy Seed, bbls.	gal.	1.70	—
Rapeseed, blown, bbls.	gal.	.90	.92
Refined, bbls.	lb.	.72	.73
Red Oil, distilled, bbls.	lb.	.10⅛	.10⅝
Tanks	lb.	.09¼	—
Saponified, bbls.	lb.	.10⅛	.10⅝
Tanks	lb.	.09¼	—
Salmon, coast, tanks	gal.	.44	nom.
Sardine, coast, tanks	gal.	.42½	—
Sesame, refined, drums	lb.	.10½	.11
Soya Bean, blown, bbls.	lb.	.12	.13½
Crude, bbls.	lb.	.12	.12½
Orient, coast, tanks	lb.	.09½	.09¾
Sperm, bleached f.o.b., New Bedford, bbls.	gal.	.84	.85
Natural, f.o.b., New Bedford, bbls.	gal.	.78	.80
Stearic Acid, Double pressed, bags	lb.	.14½	.15
Triple pressed, bags	lb.	.16½	.17
Stearine oleo, bbls.	lb.	.09⅛	.09¼
Tallow, edible, bbls.	lb.	.08¾	.08⅞
City, extra, works, loose	lb.	.07½	—
Special, works, loose	lb.	.07¼	—
Tallow oil, acidless, bbls.	lb.	.10½	—
Tanks, N. Y.	lb.	.10¼	—
Vegetable tallow, coast, mats	lb.	.06⅞	.07
Whale, crude, No. 1, coast, tanks	lb.	.07	—
No. 2, coast, tanks	lb.	.06½	—
Refined, winter bleached, bbls.	gal.	.80	—
Extra, bbls.	gal.	.82	—
Natural, bbls.	gal.	.78	—