

**KANSAS GEOLOGICAL SURVEY  
OPEN-FILE REPORT 49-4**

**THE COMPOSITION OF SCOURING POWDERS**

by

**R.T. Runnels**

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*Frye*  
*Jewett*  
*Plummer*  
*Kulstad*  
*Nixon*  
*office* KGS  
OF  
47-4

Memo to: Staff members  
Subject: Composition of scouring powders

The decline in production of volcanic ash in 1948 - 1949 prompted Mr. Nixon to request a check of the composition of scouring powders. The primary purpose was the amount and type of abrasive used. Dr. Frye suggested that we enlarge the scope of the study to include the total composition and to cover all of the more popular brands. The following is a list of trade names and their producing companies whose products were tested.

Bab-O	B. T. Babbitt Inc.
Ajax	Colgate Palmolive Peet
Old Dutch	Cudahy
Lighthouse	Armour & Co.
Crystal white	Armour & Co.
Kitchen Klenser	Fitzpatrick Bros., Inc.
Swift's Cleanser	Swift & Co.
Bon Ami	Bon Ami Co.
Lava Soap	Proctor & Gamble
Vulcan Soap	Swift & Co.
Gold Dust	Lever Brothers

Complete chemical analyses were made in the Geochemistry laboratory, primarily by John Schleicher, and petrographic identification of the insoluble or abrasive material was made by Bob Kulstad. Tables 1 and 2 show the results of this work.

Most of the data in both tables are self explanatory; however a few comments are in order. (1) Ajax and Swift's are two of the "new type." (2) Old Dutch is the only remaining cleanser using ash. Lava soap is using it which is a surprise, doubled by the fact that Swift's Vulcan "Pumicite" soap is not using ash. (3) Bab-O and Bon Ami are representative of the extremes in cleansers manufactured prior to the use of the new organic detergents.

It is my understanding from Dr. Frye that these data are to be considered confidential and should not be distributed outside of the Survey staff.

*R. T. Runnels*  
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Table 1. -- Chemical analyses

Trade Names	Active Ingredients				Inert Ingredients		Water	Insoluble Material
	Soap or Organic Deter.	Inorganic	Detergents		Fillers			
			Trisodium Phosphate	Sodium Carbonate	Sodium Hydroxide	Sodium Sulfate		
Bab-0	0.97%	9.43%	none	4.53%	1.87%	none	9.56%	73.87%
Ajax	5.87	9.15	none	none	12.27	none	7.27	65.73
Old Dutch	1.18	2.29	none	0.86	1.89	none	1.84	92.14
Lighthouse	2.92	trace	2.45%	0.37	trace	5.11%	3.10	86.05
Crystal White	2.75	0.64	1.46	0.37	none	2.45	1.25	91.07
Kitchen Klenser	1.26	6.07	none	0.24	3.05	none	5.82	83.00
Swift's Cleanser	1.47	8.23	none	0.41	none	none	8.12	81.18
Bon Ami	3.08	none	none	none	none	0.40	0.11	95.87
Lava Soap	59.14	none	none	none	strong trace	0.50	15.43	25.12
Vulcan Soap	59.44	none	none	none	none	0.20	2.88	37.02
Gold Dust	4.14	none	9.17	none	none	strong trace	3.57	82.35

Table 2. -- Abrasives

	Feldspar %	% Glass (Volcanic Ash)	% Clay or other extremely fine material
Bab-0	70 ±	10 ±	20 ±
Ajax	70 ±	10 ±	20 ±
Old Dutch	65 ±	35 ±	
Lighthouse	65 ±		35 (Diatomaceous)
Crystal White	70 ±		25 clay like material, 5 opaques
Kitchen Klenser	100		
Swift's Cleanser	100		
Bon Ami	100		
Lava Soap		100	
Vulcan pumicite soap	100		some very finely ground
Gold Dust	100		