

TABLE IX.

Under the heading "Available Acidity" are given the number of cubic centimetres of normal soda required to neutralize the acidity of 100 grammes of the sample. This number is 532 for a perfectly pure cream of tartar.

The column headed "Calculated Value" gives, to the nearest cent, the value in cents per pound of the sample, upon the assumption that genuine cream of tartar, containing 100 per cent. of bi-tartrate of potassium, is worth fifty cents per pound. I may here state that pure bi-tartrate of potassium is quoted in the catalogues of first class chemical re-agent dealers in New York (Bimer & Amend, Richards & Co., and others) at 40 cents per pound, retail. It is not intended, therefore, that these numbers should indicate other than relative values. They are calculated by the following formula, where "x" stands for the required value, and "a" for the number in the "Available Acidity" column:

$$x = 0.094a.$$

Under the heading "*Relative Volume Required*" I have given approximately the number of spoonfuls (or other unit volume) which a cook would require to use along with 100 spoonfuls of bi-carbonate of soda (baking soda, or bread-soda), on the assumption that 2 spoonfuls of genuine cream of tartar would be required for 1 spoonful of bi-carbonate. The numbers in this column form but a very rough approximation to the truth; since, while stated as volumes, they are calculated from experimental numbers obtained by working upon definite weights of the samples, which have, along with variety of composition, very different densities. Since, however, the domestic cook works for the most part by measuring her materials (instead of by the only correct method, viz., weighing them), the introduction of this column may serve to explain the difficulty found in obtaining uniform results by the use of the cream of tartar and substitutes for it which are found in the shops. These numbers are calculated from the formula $x = \frac{106400}{a}$ where "a" is the available acidity of the sample in question.

The remaining columns of the table explain themselves.