



Health Department

CITY HALL

VANCOUVER, B. C.

Pickles

Free H_2SO_4 = way to test for as follows - moisture a piece of white paper in the vinegar and dry in a water bath. the residue is more or less carbonized if free H_2SO_4 is present -

Mineral acid = If the ash of vinegar is alkali no mineral acid can be present except HNO_3 - if neutral apply the following test. a drop of 2% of logwood extract in water (0.5 gram to 100 cc) is dried on a porcelain plate. a drop of the vinegar added, and again dried, the residue from pure vinegar will be yellow and will be red if mineral acids be present.

Alum = Determine as ash = fuse ash with Na_2CO_3 extract with H_2O , hot. and ppt alumina with NH_4Cl -

Sulphurous acid = by $BaCl_2$ & calculate as H_2SO_3 by $\times 0.343$

Green pickles = look for Cu salts

Sweet pickles = look for Soda Benzoate. and Saccharine. Salicylic acid

Free H_2SO_4 = should be tested for as follows - 50 cc of sample is evaporated to dryness in a pt dish with 25 cc $\frac{N}{10}$ $NaOH$ and ignited at the lowest possible temperature. ~~the residue is then~~ 25 cc $\frac{N}{10}$ HCl is added and heated to expell CO_2 then filtered, the filtrate is washed with hot water and the washings added to the filtrate. the free acid



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is then estimated with $\frac{N}{10}$ NaOH and phenolphthalein, the number of cc of Soda used $\times 0.0045$ = amount free H_2SO_4 in 50 cc of Sample -

Vinegar = made from grain contains Sulphates, sometimes also the water used in manufacture = this must not be reported as free H_2SO_4 -

Sulphuric
Sulphates = is distinguished from Sulphates = 100 cc of Vinegar are evaporated to 10 cc, and to the cold conc liquid add 50 cc alcohol. Sulphates are pptd but H_2SO_4 remains in solution. - the liquid is filtered and diluted. the alcohol boiled off. a H_2SO_4 pptd with $BaCl_2$.

precipitate = with $AgNO_3$ doesn't mean HCl, as NaCl may have been added -

Acetic Acid = Total Acidity as acetic acid = 6 cc of Vinegar are carefully measured with a pycnometer, and diluted with 50 cc of water, in a pycnometer dist. using phenolphthalein & titrated w $\frac{N}{10}$ NaOH, the number of cc of alkali required divided by 10 expresses the acidity in terms of % Acetic Acid
or
 $100 \text{ cc} \times 0.006 = \% \text{ Acetic Acid}$



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Example

6 cc vinegar reagent 24 cc NaOH $\frac{11}{10}$

1 cc - 4 cc

0.006

0.024

100 per 10

02.400 % acetic acid.

Sulphurous acid = probably used as sulphide of lime, and is used also as a bleach for certain vegetable tissues

Shon Chon = may contain H_2SO_3 - on account of its mustard "oil" & which reacts under certain conditions (e.g. boiling with KNO_3) yield H_2SO_3

Wine Vinegar is vinegar made by the alcoholic & subsequent acetic fermentation of the juice of some ripe grapes

100 cc must contain not less than 4 grams acetic acid