

A few words about Salicylic Acid

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On some experiments in my laboratory to determine the solubility of & the best modes of application of the salicylic acid of the shops for medicinal purposes, I found there was always an undissolved residue, and was soon convinced that this was on account of an impurity of the article. For the purpose of purification I dissolved a large portion in hot absolute alcohol

and on filtering the reddish brown liquid, I found a greyish crystalline substance on the filter which I have not yet analyzed, but which is in any case an impurity.

In order that the recrystallization might proceed more rapidly, half the liquid was evaporated and in cooling the mass hardened in a light rose colored crystalline cake. After drying this on blotting paper, the outer surface was of a reddish brown but the inner parts were perfectly white. By repetition of this process the acid crystallized in needle like crystals.

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tals which were united in tufts & when dry were perfectly white with a brilliant silken appearance.

I now undertook to sublime the acid. The fumes at first gave out a pleasant aromatic odor but when the heat was increased the smell was much like that of carbolic acid and excited coughing. (It was found that a strong heat decomposed it.) The sublimate gave colorless crystals which en masse appeared as white brilliant silken needles a part of which adhered to the glass globe but mostly fell to the bottom. I

now sought some test by which I could ascertain definitely as to whether this sublimate was salicylic acid or the result of a decomposition and found an excellent reagent for this purpose in sesquic chloride of iron. The reaction in the presence of the least portion of Salicylic acid showing a beautiful violet color. This test showed the sublimate to be Salicylic acid.

The coloring of the article sold in the shops is on account of impurities or is evidence of impurity as is also the sediment remain-

ing after solution in alcohol or Ether

The solubility of the double recrystallized Galicylic acid gives better results than that from the shops. The results are as follows —

In absolute alcohol	Com. Temp.	.33
" Sulphuric Ether	" "	.40
" Distilled water	" "	.20

Either of these results dissolve a much larger amount when hot which is thrown down again upon cooling.

It seems to me that when the use of Galicylic acid in mass is required an ethereal solution will generally be found the best form of application. The ether

evaporates quickly leaving a layer of pure salicylic acid behind.

If a fluid form is wanted an alcoholic solution may be used or alcohol and water in any required proportion.
