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ESTERS OF SILICIC ACID.

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It is already known that esters of silicic acid can be produced from silicon tetrachlorid and anhydrous alcohols. This method of production, however, has the drawback of requiring perfectly anhydrous alcohols, because otherwise, mixtures with compounds richer in silicon are formed, and the yield of pure esters is small. It is therefore necessary to distil the alcohol, for example over metallic calcium, in order to obtain it in a sufficiently anhydrous condition which is a troublesome operation.

We have now found that this expensive and tedious operation of dehydrating the alcohol is avoided, and that an alcohol which is not completely dehydrated can be used, by conducting the process in the presence of inert diluents, such as hydrocarbons. In this manner a good yield of a product, which is nearly of unitary character and is directly applicable to numerous purposes is obtained. The employment of inert diluents offers great advantages also when working with anhydrous alcohols. For example the methyl ester, which is usually difficult to prepare, can be obtained in this manner.

The following example will further illustrate the nature of the said invention which however is not limited thereto. The parts are by weight.

Example.

250 parts of silicon tetrachlorid are slowly treated at room temperature with 250 parts of ethyl alcohol, of approximately 98 per cent strength by volume, under conditions excluding moisture, and diluted with from 2000 to 2300 parts of benzine of low boiling point. After expelling the benzine on the water bath, the product is distilled, the bulk, 220 parts, passing over between 145° and 165° C. Re-fractionation furnishes a product boiling between 162° and 165° centrigrade and containing 13.0 per cent of silicon.

What we claim is:

1. The process for the production of esters of ortho silicic acid which comprises treating silicon tetrachlorid with an alcohol in the presence of an inert diluent.

2. The process for the production of silicon tetra-ethylate which comprises treating silicon tetrachlorid with ethyl alcohol of about 98 per cent strength diluted with benzine.

In testimony whereof we have hereunto set our hands.

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