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ALIEN PROPERTY CUSTODIAN

DISINFECTANTS

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My invention relates to compositions having the character of disinfectants and plant protectives, and more especially to acid compositions of this kind which contain a thiocyanate.

It is an object of my invention to render acid preparations of a thiocyanate more effective.

It is another object of my invention to provide thiocyanate-containing compositions of high viscosity which will maintain a high viscosity during storage.

A viscous state is oftentimes desirable for substances which are used as disinfectants, as this enables the disinfecting action to be localized to a desired area. Moreover, in this way a more lasting action may be attained.

Now, it is well known to those skilled in the art that thiocyanates act towards reducing the viscosity of many solutions and more particularly those of sols and gels. Thus, for instance, solutions of gelatine are liquefied on addition of a thiocyanate.

It is further known that acid reagents tend to change the viscosity of mucilages of creamy to oily consistency in such a way that the respective solution gradually loses its viscosity.

For these reasons gelatine cannot be employed for imparting to acid thiocyanate-containing solutions a high viscosity. The same applied to protein solutions. If commercial pectin which is often used for producing highly viscous solutions, is added to solutions containing thiocyanates, an increase in viscosity takes place in the first instance. In the course of a few weeks, however, a far-reaching liquefication occurs; preparations containing pectins in addition to thiocyanates are therefore not fit for use either.

While mucilages prepared from linseeds, quince seeds, fleaseed, saleps, cubebes or the like show the same behavior as gelatine, I have found that tragacanth will impart to solutions containing thiocyanates a high viscosity of stable character. The viscosity of solutions, which contain tragacanth in addition to a thiocyanate or thiocyanates and acid compounds, has even been found to increase gradually. The general behavior of solutions of that kind is that at the beginning the tragacanth is in a state of a thin liquid but that the solution becomes more viscous after some time and that the high viscosity will then remain stable.

The viscous acid thiocyanate solution may be prepared in the usual way by well triturating a quantity of pulverized tragacanth with glycerine, the amount of tragacanth to be used depending on the desired degree of viscosity, and by adding the tragacanth-glycerine mixture with constant stirring to a solution containing thiocyanate.

For example, the new product may be manufactured in the following manner:

11 parts tragacanth are mixed with 20 parts boric acid and the mixture triturated with 300 parts glycerine of 1.23 sp. gr. The product when dissolved in 404 parts water yields a viscous mass to which is added so much of a concentrated acid solution of a thiocyanate and water that the total weight amounts to 1000 grams. The acidity of the aqueous solution of a thiocyanate may be adjusted by addition of sodium bisulphate, hydrochloric acid, phosphoric acid or the like, so that the resulting viscous solution has a content of about 1.8% thiocyanogen ion and a pH-value of about 1.7. Other compounds, such as a persulfate, may be added to the highly viscous acid thiocyanate-containing solutions.

The addition of glycerine may be omitted.

The above described solutions are excellently suited for use as disinfectants or plant protectives. Their acid titer remains practically constant.

Various changes may be made in the details disclosed in the foregoing specification without departing from the invention.

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