LIQUOR SODAE CHLORINATAE.*

IMPROVED PROCESS.

BY S. L. HILTON.

Chlorinated Lime	100.0 Gm.
Sodium Carbonate (Anhydrous)	50.0 Gm.
Sodium Bicarbonate	100.0 Gm.
Water, a sufficient quantity to make about	1000.0 cc

Add the chlorinated lime to 500 cc water contained in a closed container of at least 1500 cc capacity; shake well repeatedly, and allow to stand for at least 12 hours. The sodium salts are added to 500 cc of water, dissolve and allow to stand 12 hours. Shake the lime suspension and gradually add the solution of the sodium salts; shake well, if the mixture becomes gelatinous warm gently until it begins to liquefy, and allow the solution to stand until the precipitate completely settles.

Decant the clear liquid and filter through paper, when all has passed through the filter transfer the precipitate to the filter, and when it has completely drained wash the precipitate with enough water to obtain about 1000 cc. Assay the liquid obtained by filtration and dilute with the washings so that the finished product will assay by the process hereafter given 2.5 percent of sodium hypochlorite. If, however, it is desired to express the result in active or available chlorine, the number of cubic centimeters of tenth normal solution of sodium thiosulphate used multiplied by 0.003546 and this result multiplied by 50 will give the amount of active chlorine. Personally, I much prefer to express the result as sodium hypochlorite instead of as expressed in the U. S. P. IX, available chlorine, for the reason that it is a solution of sodium hypochlorite and not a solution of free chlorine.

ASSAY METHOD.

Measure exactly 2 cc with a chemical pipette into an Erlenmeyer flask of about 200 cc capacity and dilute with 50 cc of distilled water, add 2 Gm. potassium iodide and 2 cc acetic acid, mix thoroughly, stopper the flask and allow to stand for 15 minutes. Carefully remove the stopper and rinse the stopper and the sides of the flask with distilled water, then carefully add tenth normal sodium thiosulphate volumetric solution; when the solution has assumed a pale yellow color add a few drops of starch test solution and reduce the flow of the sodium thiosulphate solution to drops, constantly shaking, until the blue color of the liquid is just discharged. The number of cubic centimeters of the tenth normal volumetric solution of sodium thiosulphate used multiplied by 0.003723 and the result by 50 will give the weight of sodium hypochlorite contained in 100 cc of the solution.

The advantage of this process must be self-evident; the finished solution is neutral or should be neutral to powdered phenolphthalein; if not so, an additional amount of sodium bicarbonate should be added until the solution is exactly neutral.

The solution is neutral instead of alkaline, consequently non-irritating, and when used for technical purposes, removing stains or bleaching, is very hard on fabrics, often destroying them.

It is five times the strength of the Carrel-Dakin solution, and can be readily used for making this solution simply by diluting one part with four parts of distilled water.

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* Read before Section on Practical Pharmacy and Dispensing A. Ph. A., New Orleans meeting, 1921.

It further has the advantage that if kept in amber containers, in a cool, dark place, it has remarkable keeping qualities, far in excess of the present official solution. Sample herewith submitted was made November 5, 1919, assayed 2.59% and when set aside the bottle was but two-thirds full. May 20, 1920, assayed 2.37, and May 17, 1921, 2.179 percent of sodium hypochlorite and shows, in $2^1/_2$ years, about 16% loss of sodium hypochlorite.

With reference to the method of assay let me point out that it is much more simple than the present official method for the reason that the present method directs taking about a definite volume and accurately weighing it; the average pharmacist is not equipped with an analytical balance and is unable to make such a weighing; if he uses an ordinary prescription balance the result will be no more accurate, and possibly not as much so, than by using an accurate chemical pipette; further, one of the principles of the U. S. Pharmacopoeia—solids by weight and liquids by measure—leads me to make the suggestion that the formula should make one thousand cubic centimeters instead of one thousand grams, and the assay should likewise represent so many grams in so much liquid by volume.

The above is respectfully submitted as a suggestion to the Committee of Revision, U. S. Pharmacopoeia.

ODDS AND ENDS.*

BY W. WILSON MCNEARY.[1]

In making solution of mercuric chloride in any strength, it will be found that sodium chloride assists as a solvent quite as well as ammonium chloride, and is much cheaper. Five pounds of mercuric chloride will dissolve in about a gallon of water with the aid of five pounds sodium chloride.

In drying hypodermic tablets that tend to discolor in light when moist, such as morphine and eserine salts, place them in a cardboard box previously dried in a hot air oven while the box is still hot, and cover with lid; they dry quickly and remain white. To prevent hypodermic tablets from sticking to the moulds, fan the plate with a piece of cardboard for a few moments before pressing out; they drop off without trouble.

A prominent skin specialist desired, for an affection covering the entire body, a non-greasy application to carry curative agents, such as resorcin, phenol and boric acid, which could be easily applied and easily washed off in the bath. The following was supplied and answered the purpose:

Powdered tragacanth, 1 ounce
Alcohol, sufficient to moisten
Glycerine, 1 ounce
Water, q. s. to make one pint

So many pharmacists continue to use the dirty paste pot and brush when a very handy outfit can be made by fastening a piece of cheesecloth, with a rubber band, over the lid of a jar filled with mucilage, and inverting same in an ointment pot. It is always ready to use. Discard the filthy paste pot and brush.

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* Read before Section on Practical Pharmacy and Dispensing A. Ph. A., New Orleans meeting, 1921.

[1] Chief Pharmacist Graduate School of Medicine, University of Pennsylvania.