

Very recently 1 part of potassium citrate has been suggested in place of 4 parts of sodium citrate. Such a solution would hydrolyze, if anything, faster than one made with a higher concentration of the sodium salt.

CONCLUSION.

It has been claimed that acetylsalicylic acid may be dispensed in a solution of sodium citrate without decomposition of the acetylsalicylic acid. The experiments here reported show that this is incorrect; that after four days the acetylsalicylic acid is broken down to the extent of 50 percent; after nine days, to 75 percent, and that in seventeen days it is almost completely hydrolyzed.

SOLUBLE COMPOUND SPIRIT OF ORANGE AND A SIMPLIFIED PROCESS FOR AROMATIC ELIXIR.*

BY ERNEST R. JONES.

One of the simplest galenicals of the United States Pharmacopoeia to make is Aromatic Elixir and it is regrettable that so many pharmacists have given up the manufacture of this product. Yet, the fact is not to be wondered at for, simple as the formula appears, its clarification is very trying on one's patience, and the usual result is a cloudy preparation even after many repeated filtrations.

Some may disagree with me here and say, if I would try magnesium carbonate, I would have no trouble. I grant you that the clarification would then proceed beautifully, but we know that magnesium carbonate is slightly soluble, makes an alkaline elixir which may lead to dispensing difficulties, and must therefore be ruled out.

The reason for the difficulty in clarification is easily understood when the composition of the oils entering into the formula for Compound Spirit of Orange is studied. Only small fractions of oils of orange and lemon are of value as flavors, the balance of the oil being made up of various compounds, known as terpenes. These terpenes are soluble only in strong alcohol, have no flavor value and easily oxidize to products much resembling turpentine in odor. Oil of orange contains about 95 percent, oil of lemon about 90 percent, and oils of coriander and anise, none, or not more than traces of terpenes. In the case of the first two mentioned oils, this leaves a balance of only 5 and 10 percent, respectively, for the active flavor and associated compounds.

It is possible to separate and remove most of the terpenes from these two oils and thus obtain concentrated or so-called "terpeneless oils," which are much more soluble in low percentage alcohol. Terpeneless oil of lemon contains 60 percent citral, or is 15 times more concentrated than the U. S. P. oil of lemon which has a 4 percent citral content. Oil of orange is not standardized as to the content of any one compound, but the terpeneless oil of orange, I am reliably informed, is thirty times the U. S. P. strength. As experiments prove that the difficulty in clarifying the elixir is due to the terpenes in these two oils,¹ an elixir made from a Compound Spirit of Orange—which in turn is made from terpeneless oils—should be comparatively easy to clarify. We can go a step further and treat the Compound

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

¹ Oils of coriander and anise as used in Aromatic Elixir cause practically no cloudiness.

Spirit of Orange so that it will mix clear with syrup, alcohol and water in the proportions of Aromatic Elixir thus making the preparation of this product extremely easy and simple.

The following formulas are submitted:

SOLUBLE COMPOUND SPIRIT OF ORANGE.¹

	A.	B.	C.
Oil of Orange, terpeneless.	6.00 cc	96 minims	1 fluidounce
Oil of Lemon, terpeneless.	3.00 cc	48 minims	1/2 fluidounce
Anethol.	4.00 cc	64 minims	320 minims
Oil of Coriander.	12.00 cc	192 minims	2 fluidounces
Alcohol			
Distilled Water, each, a sufficient quantity			
Purified Talc.	15.00 Gm.	1/2 ounce	2 1/2 ounces
To make.	1000.00 cc	32 fluidounces	10 pints

Dissolve the oils and the anethol in the alcohol ("A" = 540 cc, "B" = 18 fluidounces, "C" = 4 1/2 pints) and add sufficient distilled water to make the required quantity. Add the purified talc and shake well for several minutes. Set aside for several days, shaking it frequently. Filter through paper in a well-covered funnel, and wash the filter with sufficient diluted alcohol to obtain the required yield.

AROMATIC ELIXIR.

Soluble Compound Spirit of Orange.	30 cc	1 fluidounce
Alcohol.	240 cc	8 fluidounces
Syrup.	375 cc	12 fluidounces
Distilled Water, a sufficient quantity		
To make	1000 cc	32 fluidounces

Mix the Soluble Compound Spirit of Orange with the alcohol, add the syrup and then sufficient distilled water to make the required yield.

In practice these formulas have been found to give an Aromatic Elixir checking up so closely in flavor and strength with the present U. S. P. product as to be an acceptable replacement. The value of the formulas to the retail pharmacist will be quickly apparent.

LABORATORIES OF G. M. SCHETTLER.
DETROIT, MICH.

SUPERIOR OINTMENT OF AMMONIATED MERCURY BY THE WET PROCESS.*

BY ERNEST R. JONES.

The "wet process" of preparing ointments is not original with the writer, for many manufacturers have been preparing Ointment of Yellow Oxide of Mercury in this manner for some years. The only wonder is that it has not been extended to more ointments.

The "wet process" is applicable to any ointment when the insoluble solid medication can be prepared by precipitation. It differs from the usual method of preparing ointments by incorporation, in that the precipitate is never allowed to become dry, thereby eliminating the gritty particles which come from drying of

¹ Anethol, the active principle of oil of anise, is preferred in this formula, and slightly less of it and oil of coriander are purposely used with an idea of improving the flavor.

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