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## THE ALCOHOL CONTENT OF SYRUP TOLU, U. S. P.\*

BY C. W. BALLARD AND REGINALD MILLER.

It is a common practice in retail pharmacy to use various tolu concentrates for the preparation of Syrup Tolu and the manufacturers of these concentrates usually include, as part of the labeling, formulæ for the manufacture of the syrup. These formulæ state that the resulting product will be Syrup Tolu and in certain instances the legend U. S. P. specifically appears. It is not unreasonable for the practicing pharmacist to expect that by following the formula he will obtain a Syrup Tolu which corresponds to the pharmacopœial requirements, but this expectation is not always realized.

\* Section on Practical Pharmacy and Dispensing, A. P. H. A., Toronto meeting, 1932.

Laboratory examination of samples of Syrup Tolu from retail pharmacies in the City of New York shows frequent deviation from the official requirement regarding alcohol content. A further investigation shows that a concentrated tolu was used as the basic material in many of these deficient samples. A possibility of deviation from formula was eliminated by securing concentrates of several reputable manufacturers, preparing the syrup according to stated formula and assaying the resulting preparation for alcohol content. As will be apparent in the following tabulation, these syrups showed an alcohol content uniformly lower than the 3.5 to 4.5% by volume specified by the U. S. Pharmacopoeia X.

Soluble Tolu Preparations.	Labeling.	Formula for Syrup Tolu.	Alcohol Content of Preparation Resulting.
Manufacturer "A"	Fluid T o l u Soluble Al- cohol 20%	Use $\frac{1}{2}$ fld. oz., add simple syrup <i>q. s.</i> 16 fld. oz.	1.8%
Manufacturer "B"	Alcohol 20%	Use 2 fld. oz , add simple syrup <i>q. s.</i> 23 fld. oz.	Less than 3.5%
Manufacturer "C"	Alcohol 25%	Use 40 cc. and 460 cc. simple syrup	Less than 3.5%
Manufacturer "D"	Alcohol 20%	Use 42 cc. and simple syrup <i>q. s.</i> 500 cc.	Less than 3.5%
Manufacturer "E"	Fluid T o l u Soluble Al- cohol 24% (Artificial Color)	Use 30 cc. and 450 cc. simple syrup	1.5%

From a therapeutic standpoint these deviations from the official alcohol content may not be of importance but the fact remains that official specifications have a legal aspect. The retail pharmacist is held responsible for the quality of medicinal preparations he sells and regulatory authorities are legally bound by the official specifications. In certain instances the specifications may be interpreted in such a manner as to permit variation, but the official statement of maximum and minimum limits for alcohol in this preparation does not admit of much variation.

There appears to be no reason why the manufacturers of these concentrated tolu preparations cannot give the pharmacist a formula which will produce a preparation meeting all official requirements. Failure to do so will result in a continuance of a petty type of violation which is annoying to the pharmacist and more so to regulatory officials.

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### SOME PRESCRIPTION INCOMPATIBILITIES.\*

BY S. L. HILTON.

In presenting the following prescriptions I am in hopes of bringing out some difficulties, some of which I have been able to solve and several others not. If the physician had better training or more properly speaking any training in prescription writing and incompatibilities, or would consult the pharmacist, he would obtain better results and most of the incompatibilities would be eliminated.

\* Section on Practical Pharmacy and Dispensing, A. PH. A., Toronto meeting, 1932.