

The advantages of Anethol in Spiritus Ammonii Anisatus, according to my experience, and I have prepared this galenical in large quantities for a great many years, are as follows:

1. Anethol produces a clear solution, while some of the anise oils give a turbid or cloudy spirit, which forms a precipitate.

2. Anethol produces a colorless preparation, while most of the anise oils turn the spirit yellow.

I hope that this question will be well discussed by the members of the Scientific Section, and I trust that my arguments presented will be so convincing that the uniform anethol will supersede the variable oils of anise in National Formulary, and perhaps also in United States Pharmacopoeial preparations.

AN EXAMINATION OF SOME COMMERCIAL SAMPLES OF ANETHOL.

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In connection with the work of the Committee on Unofficial Standards, it was decided to prepare a standard for Anethol, and an examination of at least several commercial samples thus became necessary.

The authorities are fairly closely agreed upon the description and tests for this article. The Ph. Germanica IV, in which it was official as Oleum Anisi, gave its melting point at $+20$ to $+21^{\circ}$; the specific gravity at 25° C. 0.984 to 0.986; the boiling point 232° to 234° C., and soluble in two parts of alcohol. The Austrian Pharmacopoeia similarly states the melting point $+20$ to $+21^{\circ}$ C.; specific gravity 0.984 to 0.986; boiling point 232° to 234° . Parry, Chemistry of Essential Oils, gives melting point 21° ; boiling point 232° . Gildemeister and Hoffman, The Volatile Oils, melting point 21° ; boiling point 233° to 233.5° ; specific gravity at 25° C. 0.986. Allen, Commercial Organic Analysis, states "freshly prepared pure anethol congeals at about 21° C. and re-melts at 22.5 to 22.7° C. It is optically inactive. It undergoes oxidation on keeping." Schmidt, Pharmaceutische Chemie, states "melting point $+21$ to $+22^{\circ}$ C.; boiling point 233° ; specific gravity at 25° as 0.985." This author also "directs attention to the fact that from long keeping in the liquid state or exposure to air, Anethol changes, and then its congealing point may be reduced to even below 0° ."

While the Anethol of the European pharmacopoeias is presumably that obtained from Oil of Anise, it is the main constituent in oils of anise, star anise and fennel and may commercially be prepared from either of these. The oil of star anise probably furnishes the bulk of that in the American market. The physical characters must vary slightly with the source from which the anethol is obtained, due to slight adhering traces of the other constituents of the oil used. Within narrow limitations these affect the congealing, melting and boiling points and the specific gravity. While chemically pure Anethol is optically inactive, the commercial might show a slight dextro rotation if prepared from oil of fennel or a

slight laevo rotation if prepared from anise or star anise oils. In the establishing of a standard for the commercial article of satisfactory quality, such deviation from strict lines of absolute purity must be noted and limitation therefore fixed.

Five different samples were examined, three of these being recently procured from the agents of different manufacturers. The fourth was a sample purchased about two years before and subject to such exposure to light and air as would occur in store use. The fifth was an old sample which was at least fifteen years old but which had been kept for years in a dark closet. The results tabulated are here given:

Sp. Gr.	Op. Rotation	Congeaing Point	Melting Point	Solubility in 2 Vols. of Alcohol	With Solution Na H SO ₃
1—0.985	—,07	21° C.	23° C.	Clear solution	No reaction
2—0.986	+ ,035	20° C.	22° C.	Clear solution	No reaction
3—0.9846	Inactive	20° C.	22° C.	Clear solution	No reaction
4—1.0216	—,052	No sign of congealing at +5° C.		Clear solution	Copious crystalline separation
5—1.0045	Inactive	14° C.	15° C.	Clear solution	Slight crystalline separation

Samples No. 4 and No. 5 show the changes due to keeping as stated by Schmidt. This is an oxidation and the reaction with sodium acid sulphite solution indicates that anisic aldehyde is at least one of the resultant products of such oxidation.

COÖPERATION WITH RETAIL DEALERS.

“During the past year there has been a wonderful awakening among manufacturers in their attitude towards the retail dealer. Some of them are beginning to realize that the retailers are a real factor in the distribution of their goods; others still have this lesson to learn. For the past twenty-five years we have been telling some manufactures in the drug trade, that they were making a great mistake in not giving more attention to the retail druggists; that it was one thing to send a customer to his store, and quite another thing to have the dealer a willing advocate of his goods. Times are changing, and many more manufacturers now recognize that it is decidedly to their advantage to give the retailers their hearty coöperation.

“Such work is decidedly in line with modern business methods. Strictly speaking, the retailer is the manufacturer’s agent, and it is to the advantage of these manufacturers to keep these agents posted, and to extend to them every possible assistance, so as to help the retailer increase his profits and his sales, all of which reacts to the benefit of the manufacturer.”—*Pharmaceutical Era*.