

sirable that all branches of the drug trade give the patent medicine problem renewed and serious consideration and make an honest effort to adjust their interests in accord with the interests of the public and thus effectually counteract the frequently made assertion that the economic questions involved must outweigh all others so far as the drug trade may be concerned.

PETROLATUM LIQUIDUM, U. S. P. VIII.*
(Paraffinum Liquidum. White Mineral Oil.)

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The U. S. P. VIII provides that this substance shall conform to the following description:

"A mixture of hydrocarbons, chiefly of the methane series, obtained by distilling off most of the higher and more volatile portions from petroleum and purifying the liquid residue.

"A colorless, or very slightly yellowish, oily transparent liquid without odor or taste but giving off, when heated, a faint odor of petroleum."

Sp. G., .870 to .950 at 25° C. Tests are given for solubility, acid impurities, fixed oils or fats, either animal or vegetable and readily carbonizable impurities.

It is proposed for the U. S. P. IX, to change the official title to Paraffinum Liquidum, which seems to be wise and in conformity to modern standards. The description, allowing a very slight yellow color, is a mistake as there is no difficulty in obtaining a colorless oil, except the oils of this kind that are produced in this country. The new requirement that it shall be free from fluorescence is proper and not necessarily exacting.

From a careful study of a number of samples of White Mineral Oil, obtained from various sources, the appended table shows that the official requirements can be met without much difficulty, it is further demonstrated that an oil that is usually above the Sp. G. .870 will show more or less solid paraffin when subjected to a temperature of -4° C., yet in the table two samples, each of the Sp. G. of .875 remained perfectly clear after being subjected to this temperature for eight hours. It is therefore evident that in the process of purification chilling was not thorough or carried on for a sufficient length of time and the final filtration was not performed at the same temperature. The desire to have as heavy oil as possible for internal administration as recommended by Dr. Lane, of London, is no doubt accountable for such a large number of samples with a specific gravity lower than .875, becoming opaque or milky at this temperature.

With proper manipulation and care an oil of the Sp. G. .8755 should show no separation of paraffin on chilling; some standard covering this point should be provided, that is, a minimum specific gravity that will show no separation of paraffin when the oil is subjected to a temperature of at least 0° C.

None of the samples showed an admixture of fixed oils or fats, either animal

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or vegetable; the test is one that must be carefully applied; the neutralizing of the alkali with strong sulphuric acid, after digestion, is violent unless it is added very slowly.

The results of the Sulphuric Acid Test are most interesting, showing almost every shade of brown, and in several cases the oily layer became opaque and colored, and not conforming to the requirements of the U. S. P., the British Pharmacopœia or the German Pharmacopœia.

As to the internal administration of Paraffin Oil, a number of specialists of this city have used it for several years. The principal method followed by them is to administer from 15 to 60 cc. at bed-time; in obstinate cases of constipation 15 cc. administered about one hour before meals, so as to avoid interfering with digestion. With these methods of administration good results have been produced; there are however, many cases of complaints that the oil will pass out of the intestinal tract involuntarily very much to the discomfort of the patient, even when given in very small doses. This trouble seems to be more frequent with the administration of one of the popular brands of the market which shows a specific gravity of less than .860.

Paraffin oils of a specific gravity of .880 or more are rather more difficult of administration than those of .870 to .875. They adhere to the month very closely and to some are disagreeable and suggestive of Castor Oil.

An oil aromatized or flavored with some essential oil or combination of oils seems to be growing in demand. I submit ten samples, any of which no doubt would be agreeable to some. Personally, peppermint seems to be the most pleasant and agreeable, cardamon a close second; no doubt many would prefer spearmint, owing to the chewing gum craze.

The flavoring of paraffin oils must be done with care; from 5 to 25 drops of an essential oil will be found sufficient for 500 cc. While this small amount may not give a pronounced odor, it must be remembered that the dose administered, 15 to 60 cc., will be sufficient to give a fairly pronounced taste. The samples submitted contain in each 500 cc. the following amounts of essential oils: almond 15 drops; clove 10 drops; anethol 10 drops; cinnamon 5 drops; peppermint 15 drops; spearmint 15 drops; sweet birch 25 drops; wintergreen 25 drops; and aromatic, using the oils constituting spirit aurantii comp. 15 drops.

Another interesting phase of the examination is the various prices charged for these paraffin oils, those with fancy coined names commanding very much more than other oils on the open market and all or nearly all coming from the same source and possibly from the same importer. As pointed out by Mr. Wilbert, the better or finer grades come from Russia, hence the name Russian Mineral Oil. The American oil usually has a fluorescence, is slightly yellow in color and has a more pronounced petroleum odor when heated. The best grades of Russian oil can be purchased for about 80c a gallon, while those with trade or coined names will cost from 40c to 60c a pint.

Pharmacists are able to supply physicians and their patients with an oil of high quality, reasonable in price and should avail themselves of the present opportunity. An oil of at least Sp. G. .8750, that is colorless, tasteless and free from fluorescence, that will not show more than a pale brown color with the sulphuric acid test, free from admixture with animal or vegetable oils and

remains clear when subjected to a temperature of 0° C. for four hours seems to be the oil most desired, and if demanded, can readily be obtained.

EXAMINATION OF WHITE MINERAL OILS.

Brand.	Price Gal.	Color and Taste.	Odor.	Sp.G. 25° C.	Saponif. Test.	H ₂ SO ₄ Test.	Freezing Test—4° C.
Amalie Gloria, Grade "A"	85c	Colorless and tasteless	None	.87893	Nil	V. P. B.	Slightly opaque
Amalie Gloria, Grade "B"	75c	Colorless and tasteless	None	.86753	Nil	V. P. B.	Slightly opaque
Amalie Gloria, Grade "C"	65c	Colorless and tasteless	None	.85984	Nil	V. P. B.	Clear
Amalie Russian, Grade "A"	58c	Colorless and tasteless	None	.85953	Nil	Brown	Clear
Amalie Russian, Grade "B"	50c	Sigt. Pet. taste	None	.85993	Nil	Brown	Clear
Liq. Albolene	40c pt.	Colorless and tasteless	None	.85979	Nil	Brown, oil layer colored	Clear
Zinkeisen, Russian	90c	Colorless and tasteless	None	.87688	Nil	V. P. B.	Quite milky
National Aniline Co. No. 2	80c	Colorless and tasteless	None	.87546	Nil	Brown	Clear
National Aniline Co. a2188	80c	Colorless and tasteless	None	.88154	Nil	Brown	Slightly opaque
S. K. & F. Co., Russian	..	Colorless and tasteless	None	.87599	Nil	Pale brown	Clear
"Squibbs"	40c pt.	Colorless and tasteless	None	.87519	Nil	Pale brown	Slightly opaque
"Olo"	84c pt.	Yellow cinnamon	Slight	.87976	Nil	Brown, oil layer brown	Slightly opaque
Teralbolia	..	Fluorescent, tasteless	None	.85535	Nil	Red brown, oil layer dark bwn. & opaque	Slightly opaque
Freeman's Russian Min. Ol.	50c pt.	Colorless and tasteless	None	.88257	Nil	Pale brown	Quite milky, ropy separation in layer at top
Petrolax	..	Colorless and tasteless	None	.88165	Nil
Unknown No. 1	..	Slight fluor.	None	.86812	Nil	Dark brown	Clear
Unknown No. 2	..	Colorless and tasteless	None	.87765	Nil	Pale brown, oil layer slty. col.	Slightly opaque
White Liquid Vaseline	..	Very decided fluorescence	None	.85360	Nil	Red brown, oil layer dark brown opaque	Quite milky
Barrett & Co., Russian	\$1.00	Colorless and tasteless	None	.8840	Nil	Pale brown	Quite milky
Wilson's Sons White Min. Ol	70c	Sample dirty, very yellow in color, no examination.					

Prices stated are wholesale.

ABBREVIATIONS, ETC.

V. P. B. Very pale brown.

Amalie Brands, from L. Sonneborn Sons, Inc., New York.

"Olo" American Olo Co., Llanerch, Pa.

Teralbolia, Robert C. Cadmus, Philadelphia, Pa.

Freemans Russian Mineral Oil, Aseptic Chemical Co., Chicago, Ill.

Barrett & Co., Importers, Chicago.

Zinkeisen, National Aniline & Chemical Co., E. R. Squibb & Sons, New York.

S. K. & F. Co., Smith, Kline & French Co., Philadelphia, Pa.