

Outside White
VD-1689 Drier
H-598 - #500 011

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JL 6 '53

Philadelphia Laboratory
July 8, 1947

MEMORANDUM REPORT #M-129:

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ELIMINATION OF VD-1689 DRIER FROM 301-838 OUTSIDE WHITE

In the original formula for 301-838 Outside White, VD-1689 constitutes about half the lead drier. This product contains H-598 in place of H-259 linseed oil and requires about double the lead drier in order to obtain satisfactory drying. In the original laboratory work, the use of straight VD-1428 Lead Naphthanate resulted in higher solids content and cost, so that it appeared necessary to include some VD-1689 to lower the solids content.

Recently, in anticipation of a shortage of litharge which is needed in the manufacture of VD-1689, a number of parallel batches have been made in the Philadelphia plant using the specified blend of VD-1689 and VD-1428 in one case, and VD-1428 as the total lead in the second case.

The plant results indicate that the expected high solids content with VD-1428 does not occur in the plant, so that VD-1689 is not necessary. The elimination of VD-1689 results in a slight improvement in brushing. This is desirable, since 301-838 has been found to have slightly poorer brushing characteristics than 301-827, the all-linseed product which it replaces. In accordance with these observations, the formula for 301-838 has been revised to eliminate VD-1689 Drier.

The attached table shows the six batches which have been examined in the Philadelphia Laboratory. All batches were about one week old when they were brushed out on June 5, 1947. The stability is expected to be satisfactory, since the first laboratory batches containing VD-1428 as the total drier are now six months old and are still in good condition.

Notebook reference: Notebook 3323, pages 56, 57.

PHILADELPHIA LABORATORY

W. F. Singleton
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WFS:INB
enc.

ELIMINATION OF VD-1689 DRIER IN 301-838

<u>Batch</u>	<u>Drier</u>	<u>Gallon Weight</u>	<u>Sterner</u>	<u>Ease of Brushing</u>	<u>Lapping</u>
45865	VD-1689, VD-1428	14.19	97	Poor	Very Poor
45866	" "	14.08	94	"	" "
45867	" "	14.17	92	"	" "
45871	VD-1428	14.05	85	Fair	" "
45872	"	14.00	89	Poor	" "
45873	"	13.91	84	Fair	" "

No differences in gloss, flashing, nor tackiness at 24 hours.