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TECHNICAL SUPPLEMENT
PHILADELPHIA LABORATORY RELEASE LETTER NO. 1110
RECOMMENDATION FOR RELEASE OF LEAD-FREE OUTSIDE WHITE 301-867

Composition:

This product has the same vehicle as 301-863 which contains 35% refined soya oil in total oil, 15% bodied linseed oil and 50% raw linseed oil.

The grade of zinc oxide is Azo ZZZ-11, which is of the nodular variety. It has been found necessary to use a special extender with low oil requirements. This extender, Asbestine-X, has been proposed for house paint tints in Release Letter 1059-A.

In order to obtain satisfactory gloss, it became necessary to reduce the pigment volume to 32% as compared to 35% in the present #40 Outside White. There may be a slight increase in dirt collection because of the lower pigment volume but we believe the difference will be negligible.

Studies of ZZZ-11 lead-free paints on houses and on the test fence have proved to have satisfactory durability. In one series of house tests, a white very close to this formula was included and showed life up to 7 years.

LMW 0010023

N50752

Manufacturing Problems:

One plant batch has been made on this formula, P-301-R-24100, and its properties are considered satisfactory.

Raw Material:

The product requires the following amounts of pigments:

W-3 TiO ₂ Y.C.R.	.43 #/gal.
W-5 TiO ₂ T	1.45 "
W-60 ZZZ-11 Zinc Oxide	2.90 "
W-58 Asbestine-X	4.00 "

This represents an increase of .2 #/gal. of TiO₂ compared to the present #40 Outside White.

Availability of ZZZ-11 zinc oxide for this product should be investigated by the Works Supply Department. The requirements for this product will be in addition to those for House Paint Tints which are estimated at 105,000 #/month.

W-58, Asbestine-X will also be required for House Paint Tints. Requirements for tints is expected to be 145,000 #/month and requirements for this product will be in addition to this amount.

Substitutes for W-58 are now under investigation with a view to developing sufficient supply for full production of Outside White on this basis by the time this product is ready for full release.

Simplification:

This product will not replace any existing formula at this time; it requires one new mill base. Eventually it will replace 301-864 and 301-863.

It will require two new pigments which will also be used in House Paint Tints.

PHILADELPHIA LABORATORY

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