Monsanto

FROM (NAME & LOCATION): J. H. Orem - Galt Labs - 1730

DATE: February 22, 1978

SUBJECT: SANTICIZER 278 & POLYSULFIDE WINDOW SEALANTS

REFERENCE: Products Research & Chemical Call Report 1-26-78 JHO:AEG (Products Research 12-19-77)

TO: A. W. Morgan
1730

cc: T. G. Iversen - B3NC
N. W. Touchette
W. T. Vreeland - B3NC
POLYSULFIDE FILE

OBJECTIVE:

Compare the performance of Santicizer 278 and Santicizer 261 to chlorinated paraffin and a chlorinated paraffin/DTDP blend. Define advantages of the benzyl phthalates on fog resistance, package stability and bond strength to the glass.

POSSIBLE TESTS:

A. W. Morgan suggested we make sealants, adhere two pieces of glass together with these sealants (use a spacer bar to maintain equal spacing between the glass) and age in the Fadeometer. After aging, measure optical density. Also, package stability and compatibility should be evaluated.

Before embarking on this project, we should visit with Wes Wells at Inmont. He has volunteered to help us in this study and he will provide copies of Inmont's tests.

Mel Schulman of Thiokol suggests we get the catalyst from Inmont rather than mix it ourselves. If Inmont cannot provide this, then Mel will have it made at Thiokol and sent to us.

FORMULATION:

LP-32	100
Plasticizer	20
Hankquebrka*	40
Epoxy silane	2

(a $CaCO_3$ imported from Japan by H. M. Royal; do not want too fine a calcium carbonate)

Manganese dioxide is used in the catalyst; the catalyst is used at the 10% level.

COMMENTS:

Inmont has evaluated chlorinated paraffin (used a Neville product that was 57% chlorine). To get sufficient adhesion with LP-32 plasticized with chlorinated paraffin, they had to use additional epoxy silane; this increased cost to the point where it was a break-even situation with S-278. They have also found formulations using chlorinated paraffin will not cure

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after they were heated. Bond durability and inertness to cure are properties they check along with speed of adhesion and performance after UV and water exposure. (Wes' telephone number: 577-1100.)

Mel Schulman believes PRC, because of its experience and high level of can do things other companies cannot do.

I plan to use this work, if it is beneficial, throughout the industry.

J. H. Orem

JHO/gls
attach.

P.S. The LP 32 and LP 2, are in my office.

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