Monsanto

FROM (NAME & LOCATION) C. Paton - General Offices

DATE February 12, 1969

SUBJECT THIOKOL
WORK REQUEST 69-22
PRIORITY A

REFERENCE

TO → N. W. Touchette
JFQ Research

J. A. Cannon - JFQ
A. W. M. Coaker - JFQ
J. R. Darby - JFQ
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W. F. Waychoff

I attach a copy of a memo from Jan Smoke. There has been a change of personnel at Thiokol. Joe Giordano who was supervisor of light construction and a good friend of Monsanto has left and a new man is installed. Thiokol has done a lot for us in promoting our plasticizers in polysulfides and could soon become a significant buyer of Aroclor 1254 (Ford sealant) and Santicizer 160 themselves because they plan to sell formulated sealant as well as resin.

Some time ago, we evaluated Monsanto plasticizers in a carbon black polysulfide formulation (copy attached). Dan Smith - Joe's replacement - wants us to evaluate plasticizers in an uncoated calcium carbonate formulation. White or pastel shades are often preferred in light construction sealants but Ca CO_3 is much poorer on water sensitivity than C black. (From personal experience, I've seen how poor polysulfide - Ca CO_3 sealants can be on water immersion.)

I suggest we run tests on the following formulation:

	PHR	Formulation
LP-32	100	100
Plasticizer	15 and 40	
Non-coated Ca CO_3	40	
Catalyst System:		
Lead Dioxide	50	15
Stearic Acid	5	
Santicizer 160 or Santicizer 902	45	
Sulfur		0.1

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Santicizer 902 is the former Santicizer 1707.

The following plasticizers should be run:

Santicizer 278/Santicizer 261/Santicizer 160/ Santicizer 902/Aroclor 1260/Aroclor 1254/Chloro-wax 500/HB-40 plus any other suggestions you may care to make.

The following are the tests we need:

1. Volatility for seven days at 70° C and 86° C.
2. Initial TS/B, E/B and 100% modulus.
3. TS/B, E/B and 100% modulus after three and seven days' immersion in water at 120° F (50° C).
4. Miscibility test on plasticizers in LP-32 at various levels up to 1/1/
5. Compatibility/U.V. and heat stability.

Could we have this work completed by April 1, please. As well as giving this to Thiokol, we will revise our "Polysulfide" bulletin. It is a bit out of date.

Thank you.

Cumming Paton

CP:dbw

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