Monsanto

FROM (NAME & LOCATION) R. H. Munch - St. Louis Organic Research

DATE January 26, 1968

SUBJECT DDB FOR CABLES

REFERENCE

cc: C. E. Anagnostopoulos
W. R. Richard
D. R. Dyroff
G. J. McEwan
H. S. Bergen

TO : P. G. Benignus

Attached to this memo is a tabulation of the electrical data we have obtained on the samples of alkylates A-215, A-225 and A-230 supplied to us by the Inorganic Division. Copies of the specification sheets are also attached. The data were obtained on thessamples as received.

The dissipation factor and resistivities of these materials could almost surely be considerably improved by treatment with suitable adsorbents. It is unlikely that the dielectric strength could be significantly improved since this property is not usually affected by the impurities which deteriorate dissipation factor and resistivity but is more a function of the fundamental properties of the major constituents of the samples.

The electrical properties of the alkylates are roughly comparable to those of transformer oil or Askarels. They probably cannot compete with transformer oil pricewise; they certainly cannot compete with Askarels in fire resistance.

Unless there are some other advantages such as the favorable tax situation which caused them to be used in Italy, they would not seem particularly attractive insulating fluids for cables.

R. H. Munch

jp

Attachments

DSW 201927

IN-10 REV 11-65

STLCOPCB4059994

	236 Mol mT	242 Mol. mT.	262 Mol mT.
	Alkylate 215 Lot KI-1050	Alkylate 225 Lot KI-3185	Alkylate 230 Lot KI-6096
Dissipation Factor, 60 Hz, 100° C			
at 30 minutes	.01620	.01140	.04728
Resistivity (500 Volts)			
after 90 minutes	$77,044 \times 10^9$	$154,088 \times 10^9$	$1,310 \times 10^9$
Dielectric Strength			
Average of 5 Readings	44 KV	40.8 KV	46.4 KV

DSW 201928