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March 15, 1993

CC: Dr. Hinderer
Comments?

RECEIVED

MAR 19 1993

G. L. RUTMAN

Gregory L. Rutman, Esq.
Staff Vice President,
Assistant General Counsel
and Assistant Secretary
The BFGoodrich Company
Chemical Group
6100 Oak Tree Boulevard
Cleveland, OH 44131

Re: Fike's Product Literature for HCl Detection

Dear Mr. Rutman:

This letter is a follow-up to my prior communication dated January 19, 1993, regarding your Dr. Hinderer's concern about our primary reference sources for our statement that "Studies have shown that over 60% of the PVC weight is lost in the form of HCl produced by thermal degradation that precedes combustion."

We have, today, Monday, March 15, 1993, received some (but not all) of the primary sources for the foregoing quoted statement.

Based upon my review of the sources we have received to date, I believe that apparently the two most relevant sources yet received are Boettner, Analysis of the Volatile Combustion Products of Vinyl Plastics, Journal of Applied Polymer Science, Vol. 13, pages 377-391 (1969), and O'Mara, High Temperature Pyrolysis of Poly(vinyl chloride): Gas Chromatographic-Mass Spectrometric Analysis of the Pyrolysis Products from PVC Resin and Plastisols, also of the Journal of Polymer Science: Part A-1, Vol. 8, pages 1887-1899 (1970).

In the Boettner article, at page 381, when describing a thermogravimetric analysis of heating a PVC homopolymer, it is stated:

"On collecting the combustion gases up to 300 deg. C and analyzing them by infrared absorption, it was found that the 60% weight loss was almost entirely due to removal of chlorine in the form of hydrogen chloride gas and, by calculation, it appeared that the amount corresponded to almost all the chlorine atoms in the polymer."

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Fike Japan Corporation, Tokyo, Japan • Fike Europe NV, Herentals, Belgium
Fike Canada, Inc., Burlington, Ontario, Canada • Fike South East Asia Pte Ltd, Singapore

Mr. Michael M. O'Mara, who is the author of the other source cited above, is shown in the Journal of Polymer Science as associated, in 1970, with B. F. Goodrich Chemical Company, Avon Lake, Ohio 44012. Mr. O'Mara states, at page 1889, as follows:

"Since a stoichiometric amount of HCl is released (58.3%) from PVC when heated at 600 deg. C, over half of the degradation products, by weight, is HCl."

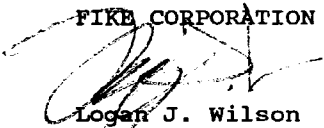
Based upon my reading of the two above quoted articles, and even though I have not yet completed a review of the primary sources upon which we relied for our product literature statement, I am recommending to our Advertising Department that we amend our future printings of product literature to state: "Studies have shown that over 55% of the PVC weight is lost in the form of HCl produced by thermal degradation that precedes combustion."

I hope and trust this change is acceptable to the BFGoodrich Company, and satisfies what I now understand to be Dr. Hinderer's concern, which he raised in a phone conversation with Craig McSparren, Fike Protection Systems Telecommunications Marketing Specialist.

Thank you for your patience and forbearance on this matter.

Very truly yours,

FIKE CORPORATION


Logan J. Wilson
Senior Vice President
Legal Affairs

LJW:bsm

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