Monsanto

COMPANY CONFIDENTIAL

FROM (NAME & LOCATION) A. W. Morgan - Galt 1730

DATE April 26, 1974

SUBJECT Mocan Foams

REFERENCE

[redacted]0

M. W. Farrar R2E
R. E. Wexler E1SA
L. O. Raether B3NB
J. A. Cooper B3ND

TO : Bruce Murray
MOCAN -
8214 Kipling Ave
Woodbridge Ontario, Canada

Attached are results of the fire tests for the eleven foams submitted by Mocan. Considerable analysis of the data indicates that every urethane tested has severe decomposition problems (Endothermic around 400°K, exothermic around 550°K). Filler has a very slight stabilizing effect; fire retardant has a slight negative effect. Ester foams are the most thermally stable foams tested, but only by 15-20°K.

Gas analysis indicates that NCO emission occurs very early in decomposition with 22-52% weight loss occurring within five minutes at 258°C. All char analysis showed loss of nitrogen. All gas analysis trapped high nitrogen containing species. The conclusion that current fire retardant methods for urethanes is greatly restricted by the extremely low decomposition point seems justified.

After you have had a chance to study this data perhaps we can discuss the best method of attacking the situation. Can we get together soon?

Please hold this data confidential until we can determine its technical generality and implications.

A. W. Morgan

DSW 587600

STLCOPCB4092936