



B. F. Goodrich Chemical Company

A DIVISION OF THE B. F. GOODRICH COMPANY

8100 OAK TREE BOULEVARD • CLEVELAND, OHIO 44131 • PHONE: 216-524-0200

June 4, 1974

Gentlemen:

To assist in our consideration of The Occupational Safety and Health Administration (OSHA) proposal described in our letter to you of May 30, 1974, we should like to offer additional information on vinyl chloride monomer currently remaining in our polymer products at the time of manufacture.

The Occupational Safety and Health Administration (OSHA) announced on April 5, 1974, an Emergency Temporary Health Standard for exposure to vinyl chloride (Federal Register, Vol. 39, No. 67, April 5, 1974, pp. 12342-44). This emergency standard established an exposure ceiling of 50 parts per million (ppm) in air for vinyl chloride (VC). OSHA, in paragraph 1910.93q of the subject standard, has set down temporary in-plant monitoring requirements for ambient air for employee protection. On May 10, 1974, OSHA published a Proposed Permanent Standard for Exposure to Vinyl Chloride Monomer limiting the allowable exposure to a "non-detectable" level.

As PVC is manufactured in the industry today, detectable quantities of vinyl chloride monomer remain in resins and compounds. While this may not result in detectable quantities in the general atmosphere in your plant, there are conditions under which residual monomer may accumulate to measurable amounts. Since the monomer is volatile, it is released from the resin gradually in storage and more rapidly under heat and further processing. It is the intent of this letter to indicate the order of magnitude of the trace amounts of residual vinyl monomer presently in our products at the time of manufacture and also to point out potential areas of accumulation. We are working diligently to reduce these trace amounts and progress is constantly being made, but time will be required to implement improved technology and equipment to reach the desired goal.

General Purpose Resins

102EP F-5, 103EP, 140X30

103EP F-76, 80X5

430X30, 300X6

Average Amount of
Residual Monomer

<0.0050% (50 ppm)

<0.0150% (150 ppm)

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<u>Dispersion & Super EP Resins</u>	<u>Average Amount of Residual Monomer</u>
120 Series, 130 Series, 90 Series	<0.0025% (25 ppm)
<u>Compounds</u>	
Flexible	<0.0010% (10 ppm)
Rigid	<0.0100% (100 ppm)
Other miscellaneous resins vary, usually being higher than any of the above.	

Analysis has shown that areas where vinyl monomer might concentrate are:

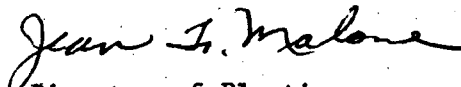
1. Enclosed containers such as bulk railcars, bulk trucks, and storage tanks. The air space above the resin should be purged and monitored for vinyl monomer or adequate protection provided prior to exposure of personnel.
2. Intensive compound mixing operations under heat. Suitable exhaust ventilation should be provided.

Appreciable concentrations are less likely to occur in other processing operations such as extrusion, molding, and calendering; but proper ventilation should be maintained around all hot processing equipment. Normal, good operating practice in exhausting volatiles may be sufficient, but should be confirmed by measurements.

The concentration of vinyl chloride at the currently mandated exposure limits cannot be detected by odor so that suitable test equipment and methods must be used as indicated in the Temporary Standard and Procedure (OSHR Vol. 3, No. 44, April 4, 1974). Copies are available at our field sales offices.

Intense technical efforts by us and others in the industry are resulting in a rapidly changing situation. As additional information becomes available, we will certainly be in touch with you.

Cordially yours,


Director of Plastic
Products Management

JFMalone/ez

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J L Nelson

Managers' Notice
No. 531
May 31, 1974

Subject: Customer Communication - Government
Proposed VCM Exposure Standard

The attached communication was sent to all our vinyl plastics, vinyl latex, elastomer polyblend, selected Abson customers and our field sales force. Direct contacts will be made with key customers to enlist their active support.

If you can be of any assistance, please contact W. S. Lodge or P. J. Weaver, Cleveland Marketing.

George Pow

George Pow
Director of Employee Relations
B.F. Goodrich Chemical Company

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