



**UNION CARBIDE CORPORATION**

**CHEMICALS AND PLASTICS**

P. O. BOX 8004, SOUTH CHARLESTON, W. VA. 25303

SOUTH CHARLESTON PLANT

October 21, 1975

Mr. G. Warren Gregory, President  
General Adhesives and Chemical Company  
6100 Centennial Boulevard  
P. O. Box 90  
Nashville, Tennessee 37202

Subject: OSHA Citation Involving Union Carbide Corporation Resins

Dear Mr. Gregory:

In view of your concern regarding the State of Tennessee OSHA citation involving Union Carbide Corporation vinyl resins and of your possible confusion resulting from the various letters supplied you by Union Carbide, we thought it worthwhile to restate our position regarding our vinyl resins and the Occupational Safety and Health Administration. This position is summarized as follows:

1. Union Carbide Corporation has data which shows that its Solvent, Dispersion and Non-Solvent vinyl resins contain no detectable vinyl chloride monomer when delivered to a customer by a test which is sensitive to 0.1 ppm by weight. These resins will not yield sufficient vinyl chloride monomer regardless of the fabricating procedure to result in air-borne vinyl chloride monomer concentrations to even approach the OSHA Standard action level. We believe that no hazard to employees exists when these resins are used by a customer in his manufacturing operations and that no hazard exists for the customer's customer.
2. The Occupational Safety and Health Administration Standard for vinyl chloride clearly exempts "fabricated products" from the Standard. A "fabricated product" is further defined as one which is not mass melted, resulting in the release of vinyl chloride monomer.

UCC  
031688

Letter to Mr. Gregory  
October 21, 1975  
Page Two

3. Messrs. Barry White and Grover Wrenn of the U. S. Department of Labor, OSHA, have clearly defined coating applications as being situations where the application is the criterion for stating that a resin is a "fabricated product". They do not make any reference to resin monomer content in their letters on this subject.

In support of these statements we offer the following items:

1. The OSHA Vinyl Chloride Standard states the following:

- (a) Scope and application. (1) This section includes requirements for the control of employee exposure to vinyl chloride (chloroethene), Chemical Abstracts Service Registry No. 75015.
- (2) This section applies to the manufacture, reaction, packaging, repackaging, storage, handling or use of vinyl chloride or polyvinyl chloride, but does not apply to the handling or use of fabricated products made of polyvinyl chloride.
- (6) "Fabricated product" means a product made wholly or partly from polyvinyl chloride, and which does not require further processing at temperatures, and for times, sufficient to cause mass melting of the polyvinyl chloride resulting in the release of vinyl chlorid .

This clearly states that a "fabricated product" is a product that requires no further processing at temperatures and for times sufficient to cause mass melting. Mass melting was also further defined in the OSHA Program Directive as follows:

"Mass melting" is the loss by thermal processing of the structural form or identity of a material such that a physical forming process is required to maintain or recover such original form (if such maintenance or recovery is desired).

Having established that fact that a product is a "fabricated product", then the standard is very clear that it does not apply.

2. Union Carbide Corporation on February 14, 1975, in a letter to Mr. Grover C. Wrenn, requested an interpretation regarding the use of vinyl resins in coating materials, particularly for resins containing less than

UCC  
031689

Letter to Mr. Grogory  
October 21, 1975  
Page Three

one part per million by weight vinyl chloride monomer. While Mr. Wrenn was pleased at the prospect of Union Carbide Corporation's production of low-monomer resins, his letter dated March 25, 1975, agreeing that Union Carbide Corporation's solvent and dispersion resins used in coating applications were "fabricated products", makes no reference to their monomer content.

3. Air Products and Chemicals, on December 10, 1974, in a letter to Mr. Barry White, requested an interpretation of the "fabricated product" status of their latex, Airflex 728. This latex was represented as containing 2 to 18 ppm residual vinyl chloride monomer. On January 17, 1975, Mr. Barry White of OSHA notified Air Products and Chemicals that he considered Airflex 728 a "fabricated product" since further processing did not involve a mass melting step. Again, no reference was made to the latex vinyl chloride content.

The foregoing three items indicate that the application of the standard to finished latexes and resins is contingent upon end use, i. e. when there is no "mass melting" in the end use, the finished resin or latex is a fabricated product. A corollary to this conclusion is that resins or latexes, when used in coatings, may contain any amount of residual monomer without causing their "fabricated product" status to be withdrawn.

Union Carbide Corporation, as a responsible corporate citizen, has chosen to impose internal limits on the vinyl chloride content of the resins and latexes we market for coating applications. Solvent and dispersion vinyl resins are limited to less than one part per million of residual monomer. (In actual practice this is less than 0.2 ppm by weight). Non-solvent resins average less than three parts per million vinyl chloride monomer by weight which leaves the resin within 48 hours after manufacture. (Weathering tests plus customer analysis supports this statement.) UCAR latexes contain less than five parts per million vinyl chloride monomer when shipped. Based on our data, we are actively seeking a "program directive" from OSHA exempting low-monomer content resins based on analysis rather than the difficult-to-understand "mass melting" definition.

The resin use for which you were cited was the formulation of a coating material from Union Carbide Corporation Solvent and Non-Solvent resins. By definition, the resins you use are "fabricated products". The resins in your plant contained no detectable free vinyl chloride monomer, thus no monomer can be released to the work-space air of your plant. This has been confirmed by work-space air monitoring tests which you have performed. All-in-all, you do not have grounds for either a legal or a moral citation.

UCC  
031690

Letter to Mr. Gregory  
October 21, 1975  
Page Four

We concede that viewed as an individual offense, this citation is hardly worth the cost of contesting. When it is viewed as the beginning of a long line of equally useless regulations which will raise your operating costs as well as those of your suppliers such as Union Carbide Corporation who will in turn pass those costs on to you in raw material prices, the cost of contesting may pay dividends over a long period of time. The law is very clear in requiring that only the business cited for an OSHA violation may contest the citation, thus the burden of action is largely yours. We will, however, provide assistance in the form of legal advice, technical support and expert witnesses in any action related to such a contest.

Very truly yours,



R. N. Wheeler, Jr.

RNWJr./pm

cc: J. W. Whittlesey  
D. E. Hardman  
T. T. Szabo  
J. B. Hollingsworth  
G. T. Scott  
J. L. Carvajal

UCC  
031691