bcc: M. W. Farrar - JFQ Research
D. L. Mellon - Everett

March 15, 1971

Mr. E. F. Toomey
Nashua Corporation
44 Franklin Street
Nashua, New Hampshire 03060

Dear Mr. Toomey:

Dave Mellon has asked me to comment on your proposed carbonless carbon solvent, XS-276, which will be known as Santicizer 317, with respect to its effect on the environment. As you know, this product does contain some chlorinated terphenyls. While these materials might appear to resemble the chlorinated biphenyls which we removed from the market, evidently there is a major difference in these products as far as how they behave in the environment.

Several years ago, we began intensive studies to evaluate the presence of polychlorinated biphenyls in the environment. Repeatedly, we found these materials in places where we would not ordinarily expect to find them, e.g. fish fat, seal blubber, etc. During all these studies, we have continually looked for evidence of the presence of polychlorinated terphenyls. At no time have we ever been able to identify the chlorinated terphenyls in the environment. We believe that this is probably a function of the very low solubility of these materials in water. Thus, water cannot really act as an efficient carrier of these products, and hence they do not enter the food chain in the lakes and streams. This line of reasoning has led

Monsanto to believe that the polychlorinated terphenyls are not a hazard to the environment; thus we have left such products as Aroclor 5442 and 5460 on the market.

I would not want you to believe that these materials should be handled with no restrictions whatsoever. They are chlorinated hydrocarbons and should be treated as such. Certainly the time has come when it does not make good business sense, either economically or politically, to dump large volumes of chemicals into the sewers. For these reasons Santicizer 317, while not presenting unusual environmental problems, should probably not be dumped wholesale into the rivers and streams.

As far as the handling of this product in your plants, it should cause no unusual problems. At ordinary temperatures, Santicizer 317 should not present industrial toxicological problems. When Santicizer 317 is used at elevated temperatures, engineering controls must be applied, either by the use of closed systems or by effective local-exhaust ventilation together with general workroom exhaust.

Continuous or repeated skin contact with Santicizer 317 should be avoided by the use of gloves and protective garments, because of the possible occurrence of a condition called chloracne. Although reports of this condition caused by chlorinated terphenyls are extremely rare, it can be produced by excessive skin contact. If Santicizer 317 is spilled on the skin, the skin should be washed in the usual manner with a soap solution.

A burn caused by contact with hot Santicizer 317 should be treated like any ordinary burn. Material adhering to the burned area need not be removed immediately, unless treatment of the burn demands it, in which case either soap and water or repeated washings with a vegetable oil are recommended.

I hope that these comments are helpful to you. If I can be of further service, please do not hesitate to contact me.

Very respectfully,

Willis S. Clark
Senior Product Specialist
Specialty Plasticizers

/dbw