2

3M Chemicals

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January 15, 1999

## **VIA FACSIMILE**

Rick DeBlasio
Executive Vice President
Corporate Operations Group
Wolverine Worldwide, Inc.
North Main Office
123 North Main Street
Rockford, MI 49351

## Dear Mr. DeBlasio:

This letter is in follow-up to a meeting held at Wolverine Worldwide, Inc. on January 10, 1999.

Thank you for agreeing to meet with 3M's representatives. Although I was not able to attend that meeting, I would like to respond to your request for a written summary of the key points, which are as follows:

- \* There is a growing interest in understanding the effects of chemicals on human health and the environment. In this regard, 3M has a comprehensive initiative underway that is helping us to advance the understanding of fluorochemicals. One example is the fluorochemical perfluoroctane sulfonate (PFOS). 3M has manufactured PFOS and related molecules since 1948.
- \* PFOS is an example of an "organic" fluorine molecule. Human serum has been known to contain organic fluorine molecules for over thirty years, as reported in the published scientific literature.
- \* 3M's improvement in the application of analytical techniques has allowed for rapid analysis of specific organic fluorine molecules at extremely low limits of detection.
- \* 3M's state of the art analytical techniques have led to the recent discovery of PFOS at tens of parts per billion (ppb) levels in serum samples of nonoccupationally exposed people.



January 15, 1999 Page 2

- \* Fluorochemicals such as PFOS are stable molecules and therefore persistent. As such, PFOS has the potential to accumulate in the body with repeated exposures and to resist degradation in the environment. This information was reported to your company previously in an updated Material Safety Data Sheet as recently as late 1998.
- \* 3M has conducted medical surveillance among employees occupationally exposed to PFOS for over twenty years. These employees have PFOS serum levels that range from one part per million (ppm) up to 12 ppm. No adverse health effect associated with PFOS exposure has been found in 3M employees, whose measured level is about 100 times higher than levels seen in the serum of people without occupational exposure.
- \* Further, the currently available evidence does not suggest any human health effect associated with the levels of PFOS found in serum samples of people without occupational exposure.
- \* Exposure could occur from manufacturing processes of 3M and its downstream users, as well as from product use and disposal. The relative contribution of these various sources to population exposure and the routes of exposure are currently under study.

3M has undertaken a wide range of stewardship initiatives in response to these recent findings. These stewardship activities are outlined below:

- \* 3M is actively developing further human health and toxicological information to advance our scientific understanding. We are working with a number of leading independent researchers and scientists to help with this effort.
- \* An expansive environmental testing program is underway to advance our understanding of exposure routes to these materials outside as well as within the occupational setting.
- \* 3M has initiated discussions with regulatory agencies globally, including the U.S. EPA and FDA, to advise them of our findings and to seek their input and assistance with our testing and stewardship initiatives.
- \* In spite of the absence of known human health effects at the levels observed, 3M is committed to reducing sources of exposure to PFOS. In that regard, we are actively reducing fluorochemical residuals in our

January 15, 1999 Page 3

> products and reducing environmental emissions and waste streams at our manufacturing facilities. We are also exploring opportunities to transition from persistent to non-persistent chemistries where appropriate.

> We are committed to keeping our customers fully informed via updates to our Material Safety Data Sheets and product labels, face-toface meetings and follow-up with 3M internal resources to assist customers with their own industrial hygiene and environmental programs. We are prepared to assist you in communications with your downstream users or customers if you so desire. We will also be communicating this information to some of our downstream customers.

In summary, our efforts are being guided by the concept that reducing unnecessary human and environmental exposure to a persistent chemical is the prudent and responsible thing to do, even in the absence of known human health effects. We hope that you agree and we look forward to working together to implement this objective. We will continue to bring you products and services that embrace 3M's finest traditions of innovation and reliability.

We trust that you appreciate the delicate nature of this information and its potential for misuse. We ask that you treat it accordingly.

Sincerely,

John S. Boyd **Business Director** 

3M Protective Chemicals Products Division

JSB/kk