# Monsanto

DEPARTMENT OF MEDICINE & ENVIRONMENTAL HEALTH

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Ms. Deborah Smith
Office of Administration
Personnel Division
General Services Administration
Room 1904
Washington, D. C. 20405

Dear Ms. Smith:

Mr. Warren Easley of our Washington office has asked us to provide you with some information on the toxicity and safe handling of PCB's. I have attached a toxicity summary of Aroclor 1016 used extensively as a capacitor dielectric fluid. This material has the lowest chlorine content of the currently available Aroclors. It does, however, demonstrate the toxicity and handling hazards associated with all such PCB materials.

As you know, we have been manufacturing these materials since 1929, and at no time have we ever had any problems with our own workers or any customers' workers handling PCB materials in the capacitor or transformer uses. We have never seen any cases of chloracne in our workers or customers' workers. This is a common statement one hears in connection with PCB handling that we have found not to be true in practice. In fact, other than its ecological effect and its resistance to biodegradation, PCB materials have never posed any demonstrable problem.

I would suggest that you acquire from the American National Standards Institute, 1430 Broadway, New York 10018, a copy of the ANSI C 107.1-1974 entitled "Guidelines for Handling and Disposal of Capacitor and Transformer Grade Askarels Containing Polychlorinated Biphenyls".

This document covers the only current use for which PCB's are sold by Monsanto. If you need any further information, we would be more than happy to supply it.

MONS 095006

Sincerely,

Jack T. Garrett

Jack T. Garrett
Manager Industrial Hygiene

mlw

TOXICITY INFORMATION ON: AROCLOR® 1016 Capacitor Dielectric

## TOXICITY

The rat acute oral $LD_{50}$ of AROCLOR 1016 is 2.3 grams/kilogram. When held in continuous 24-hour contact with rabbit skin, the dermal $LD_{50}$ was estimated to be between 1.58 grams/kilogram and 2.0 grams/kilogram. Thus, AROCLOR 1016 is considered to be slightly toxic by ingestion in single doses and by single dermal applications.

When undiluted AROCLOR 1016 was placed into the conjunctival sac of the rabbit eye, a slight degree of irritation resulted. The average score of the 24-, 48- and 72-hour readings was 5.1 on a scale of 110.0. The irritation in 4 of 6 treated eyes had subsided by 72 hours after dosing. The other two treated eyes had regained a normal appearance by 168 hours after dosing.

A severe degree of irritation resulted when undiluted AROCLOR 1016 was held in continuous 24-hour contact with intact and abraded rabbit skin. The Primary Irritation Index was 5.3 on a scale of 8.0.

## HANDLING PRECAUTIONS

Care should be taken to avoid AROCLOR 1016 contact with the skin. In case of skin contact, immediately wash exposed surfaces thoroughly with soap and water. If irritation persists, consult a physician.

In case of eye contact, flush immediately with large volumes of water. If irritation persists, consult a physician.

AROCLOR 1016 has a negligible vapor pressure at room temperature and it is not expected to present a significant vapor inhalation hazard under ambient conditions. However, precautions should be observed to avoid inhalation of increased vapor concentrations which may occur if AROCLOR 1016 is used at elevated temperatures.

## ENVIRONMENTAL HAZARDS

During the past several years, evidence has accumulated to indicate that polychlorinated biphenyls are widely dispersed throughout the environment and that they can have adverse ecological and toxicological effects. Extreme care should, therefore, be taken by all users of AROCLOR 1016 to prevent any entry into the enviroment through spills, leakage, use or disposal.

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The above information is based upon studies conducted by Monsanto Company. It is believed to be correct, and it is supplied to others upon the condition that the persons receiving it shall make their own determination of its suitability for their purposes. No warranty is expressed or implied regarding the accuracy of this information or the results to be obtained from its use.

Inquiries regarding this information are to be referred to the Corporate Medical Department, 800 N. Lindbergh, St. Louis, Mo. 63166, (314) 694-1000.