

23

Inerteen

November 2, 1959

Mr. Frank C. Wright, Safety Engineer
U. S. Naval Ordnance Laboratory
White Oak
Silver Spring, Maryland

Dear Mr. Wright:

Your letter concerning properties and safe usage precautions for Inerteen has been referred to me for a reply. I am sorry for the delay in answering, but I have been away from my office a lot during the last month.

Since we make capacitors containing one kind of Inerteen and transformers with another formulation, information is given for both since I do not know which Inerteen is of concern to you. Capacitor Inerteen is trichlorobiphenyl and Transformer Inerteen consists of 40% trichlorobenzene and 60% hexachlorodiphenyl. It is expected you will treat this composition as confidential information.

Prolonged or repeated skin contact with any of the chlorinated diphenyls should be avoided since they have some ability to dissolve oils and fats. This is particularly true for the less chlorinated compound. Chloracne could also develop where prolonged skin contact is permitted repeatedly if the skin is not well cleansed daily for the removal of these contaminants. However, the occurrence of chloracne has not been reported frequently.

It is well to provide neoprene coated gloves and aprons to prevent skin contact and clothing contamination where necessary.

Prolonged or excessive vapors from excessively heated Inerteen should not be breathed. The Maximum Acceptable Concentration for trichlorodiphenyl appears to be one milligram per cubic meter of air and 0.5 milligram per cubic meter for Transformer Inerteen. For trichlorobenzene itself, the vapor concentration should not exceed about 100 parts per million. High concentrations

Mr. Frank C. Wright

2

November 2, 1959

may produce irritation of the respiratory tract, eyes and throat. It is believed that significant vapors should not be released from the chlorinated diphenyls at temperatures below 150°F where good general ventilation is provided.

Significant skin absorption from the chlorinated diphenyls does not seem to be a problem; however, protection of the skin from prolonged exposure would prevent irritation of the skin which is a more important consideration.

Where adequate ventilation cannot be provided, where necessary for short periods of time, for concentrations slightly in excess of the Maximum Acceptable Concentrations, a U. S. Bureau of Mines approved charcoal respirator for organic vapors should provide adequate protection. For high vapor concentrations under emergency conditions, a Universal gas mask or self-contained equipment, where oxygen deficiency may exist, should be provided. All respiratory equipment should have a U. S. Bureau of Mines approval for the use intended. Adequate ventilation is always preferable to provision of respiratory protection when practical to do so.

I believe this information answers your questions, but if there are any other questions or comments feel very free to let me know about them.

Sincerely yours,

WESTINGHOUSE ELECTRIC CORPORATION

H. W. Speicher, Administrator
Industrial Hygiene

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