

March 24, 1944

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Captain D. H. Byram, M. C.,
Industrial Hygiene Branch,
Air Service Command,
Patterson Field, Ohio.

Refer to ASC 461

Dear Captain Byram:

I am sending you herewith copies of the reprints requested in your letter of March 6.

There is one point to which I wish to call your attention. Under ordinary or even approximately satisfactory conditions of handling leaded gasoline, it is not to be supposed that there would be the slightest danger of the occurrence of tetraethyl lead poisoning. For this reason your reference to these articles as being concerned with "toxic effects of gasoline" may be in error. I raise the point since I should like to be certain that there is no misunderstanding on this matter. There is danger of exposure to tetraethyl lead in the manufacture of this material and of Ethyl Fluid which contains tetraethyl lead in high concentration. There is also a potential risk in introducing Ethyl Fluid into gasoline or in any other operation in which concentrated Ethyl Fluid is handled. Also because of the operation of a number of unusual factors, dangerous and even fatal exposure to tetraethyl lead may be experienced by men who enter tanks which have been used for the storage of leaded gasoline over some considerable period of time. The only other situation in which there is any risk from tetraethyl lead in handling gasoline, is that which may be brought about when gasoline is spilled about in rather large quantities in an enclosed and inadequately ventilated area in which the temperature is somewhat elevated. The latter is a new situation which has never been met with in peace time and which arises only out of unusual circumstances associated with the handling of gasoline in war time. Information on this aspect of the matter is to be made available through official channels at an early date. At present I prefer not to speak of it in detail without official sanction. In order that you may be familiar with the situation that presents itself in peace time, I am sending you two reprints in addition to those you referred to, for your information.

Your question concerning cumene is well taken. It would be very useful to have information on this material. Unfortunately, no

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such information is available. The compound has never been studied carefully, and as far as I have been able to establish, no one has come to a conclusion yet that it should be studied with care. The occurrence of this compound in relatively high concentration in modern aircraft engine fuels is a phenomenon that would probably not occur in peace time without giving rise to preliminary toxicologic investigation. I think we shall make it a point to make some observations on cumene at an early date. Unfortunately, we are not in position at this time to discontinue other urgent work in order to make way for the investigation of this compound. In fact, we would scarcely be able to do it, unless military authorities were to come to the conclusion that this problem had to be given a priority over certain others. As to the information on the other compound which you mentioned, all information on this subject as well as the use of the name of the compound is restricted. I am not authorized to use this name in correspondence or to refer to any information concerning it without specific authority. However, I think within a short time some of the available information will be released through official channels if it has not already occurred.

Very truly yours,

Robert A. Kehoe, M. D.

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Enc.

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