

THE ASSOCIATED ETHYL COMPANY LIMITED

Reg. Office: THE ADELPHI, LONDON, W.C.2

Please address reply to :

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OUR REF.

PC/aa

HF/WEB

YOUR REF.

April 24th, 1941.

Dr. R. A. Kehoe,
Dept. of Physiology,
College of Medicine,
University of Cincinnati,
Cincinnati,
Ohio,
U. S. A.,

Dear Dr. Kehoe,

I am sending you herewith a copy of a letter which we have received from N. V. de Bataafsche Petroleum Maatschappij, together with a copy of my reply, which, I think, is self-explanatory.

I, personally, feel that the problem as presented by them might appear to be somewhat over zealous, but I wondered if you would be so kind as to arrange for some analyses to be carried out for them, should they have any further apprehension on the matter.

Yours sincerely,


H. FOSSETT.

Original by steamer
copy by air mail.

enclosures.

N. V. DE BATAAFSCHE PETROLEUM MAATSCHAPPIJ

(CURACAO)

C/o THE ASIATIC PETROLEUM CO. LTD.,
St. Helen's Court,
Great St. Helen's,
London, E.C.3.

10th April, 1941.

The Associated Ethyl Corporation,
1, Kingsway,
London, W. C. 2.,

Dear Sirs,

TA(RD) - DETERMINATION OF LEAD CONTENT OF
ETHYLISED GASOLINE.

We should be very glad if you could give us the following information:-

1. We want to use a gasoline line alternatively for a leaded gasoline and a white gasoline. The latter is used for washing purposes, so it must not be poisonous.
2. How much lead due to contamination with the leaded gasoline can be allowed in the mixture without making it dangerous in use?
3. Is there a chance of any settled lead from the inside wall of the line dissolving into the white gasoline?
4. Is there any reaction existing for indicating the quantity of lead in gasoline, which can be carried out easily and quickly?
5. Is it possible to use a colour-colorimeter for the determination of the lead content?

You would much oblige us with any early reply.

Thanking you in advance,
We remain

Yours faithfully,

N.V. DE BATAAFSCHE PETROLEUM MAATSCHAPPIJ.

(Signed) J. N. B.

cc. to Dr. R. A. Kehoe.,

HF/WEB.

April 23rd, 1941.

N.V. de Bataafsche Petroleum Maatschappij
(Curacao),
c/o The Asiatic Petroleum Co. Ltd.,
St. Helen's Court,
Great St. Helen's,
London, E. C. 3.,

Dear Sirs,

TA(RD) - Determination of Lead Content of
Ethylised Gasoline.

We wish to acknowledge receipt of your letter of the 10th April in which you raise certain questions in regard to the possible contamination of white gasoline which may be brought into contact with pipe lines which have been used for the transfer of leaded gasoline.

In reply to the first three items detailed in your letter, it is our opinion that no significant contamination would be caused by passing white gasoline through a line which had previously been used in the transfer of leaded spirit. It is, of course, assumed that the line in question would have been suitably drained after the previous operation, and there would be no mixture between the white gasoline and any leaded gasoline which might be remaining in the pipe line.

In regard to the specific enquiry as to whether any limits can be specified for lead content below which toxic effects will not be apparent, we are afraid this question is rather involved, and is not capable of such a specific answer.

We would, however, refer you to the memorandum on the handling of gasoline containing tetraethyl lead prepared by our chief medical consultant, Dr. R. A. Kehoe, which is reproduced on page 14 of the Ethyl Folder, a copy of which is being sent to you with this letter.

It is of interest to note from this memorandum that it has been demonstrated that tetraethyl lead, blended with gasoline within the normal limits prescribed, is not absorbed through the skin in measurable amounts.

With regard to the fourth and fifth points, concerning quick and accurate methods for the determination of lead in small concentrations, we are afraid we are unable to recommend any method other than the standard methods of analysis, with which we imagine you are entirely familiar.

We are, however, enclosing a memorandum detailing these methods, of which, perhaps, the gravimetric method is most widely used.

A new method, designated the Hydro Chloric Acid reflux method has recently been evolved, and this represents the latest technique.

For the estimation of very minute quantities, spectroscopic methods are utilised, but this technique, of course, is not really readily applicable to the purpose you have in mind.

We are afraid we have no data we can offer you regarding colorimetric determination.

We hope the information contained in this letter will be of value to you, and should you wish to pursue the matter further, we might be able to arrange for our friends in the United States to undertake some analyses on some specific samples.

We feel, however, the problem as presented in your letter is not likely to assume any significant proportions.

Yours faithfully,