



SHELL DEVELOPMENT COMPANY

EMERYVILLE, CALIFORNIA

TELEPHONE OLYMPIC 3-2100

January 4, 1951

*File
Assoc. Ethyl
Cross file Shell Co. Cal.*

*Write to Shell
ack.
State what is being done
Raise question of copyright*

DR. R. A. KEHOE
Kettering Laboratory
Cincinnati, Ohio

Dear Dr. Kehoe:

Attached is a copy of a letter from the Associated Ethyl Company Limited to our affiliates in England regarding your interest in the heavy ends in the bottoms from ethyl chloride manufacture. In accordance with this letter, we are shipping to you today by Railway Express a one-liter sample of ethyl chloride bottoms produced in pilot plant operations here at Emeryville.

*Sample
rec'd
1/11/51
gine
to
Hore*

*Leaked slightly
through cap.*

Very truly yours,

SHELL DEVELOPMENT COMPANY

A. J. Johnson

HAC:ec
Encl.

C
O
P
Y

THE ASSOCIATED ETHYL COMPANY LIMITED

NORTHWICH, CHESHIRE

Our Ref. MZF/4A

Date: 2.11.50

Dr M. A. Matthews,
The Shell Petroleum Company Ltd.,
Chemical Industry Management,
St Helen's Court
Great St Helen's
LONDON E.C. 3.

Dear Dr Matthews,

Ethyl Chloride Process

Recently we had a visit from Dr R. A. Kehoe who, as you probably know, is our organisation's Chief Medical Consultant. Dr Kehoe, of course, is aware of our general plans for increasing our "Ethyl" Fluid manufacturing capacity, and he mentioned to us a possibility that should be examined, that is the possible production in the ethyl chloride process of certain potentially dangerous polymers. I think, speaking very generally, that he was concerned essentially with aromatic materials possessing high boilingpoints of about 300°C or over.

From the data which you have so far made available to us, the bottoms would appear to have a composition essentially as follows:

Ethyl Chloride	9.9%
Isopropyl Chloride	1.7%
1.1 Dichloroethane	63.0%
2 Chlorobutane	2.1%
111 Trichloroethane	5.5%
1.2 Dichloroethane	17.3%
Heavy Ends	0.5%
	<u>100.0%</u>

Also present are traces of 2 methyl-butene, 2 dichloromethane, allyl chloride, 1 chloropropane, t-butyl chloride, chloroform and carbon tetrachloride.

The heavy ends from these bottoms then amount to about 5-lbs per hour, which appears to be a relatively negligible order of magnitude.

I would, however, like to ask you if there is any information available on the composition of the 0.5% of the heavy ends, from data which may be available from pilot plant operations. Furthermore, is it possible to give an operation on the probable performance of the full scale plant, in this respect. If by chance there should be any of these bottoms available in Emeryville I wonder if consideration could be given to letting Dr Kehoe have some of this material, in order that he might have it examined at the Kettering Laboratory in Cincinnati.

Yours very truly,

(Sgd) H. FOSSETT

hf/ecd