

Inquiry - Dr. Carroll

February 27, 1930

Mr. E. W. Webb,
Ethyl Gasoline Corp.,
25 Broadway,
New York City.

Dear Mr. Webb:

I am replying to you in the matter of the letter of Dr. George F. Carroll, a copy of whose letter you sent me in your letter of February 21.

A fair amount of information is available on the question of injuries to the skin, the eyes, and the respiratory passages from exposure to gasoline of various types. A careful observation of the situation since the introduction of Ethyl Gasoline upon the general market has failed to reveal any evidences of a different action on the part of Ethyl Gasoline as compared with ordinary gasolines. During the past five years I and my associates have seen a number of skin injuries which have been thought due to the action of Ethyl Gasoline. These injuries are in every way similar to the injuries which have been seen from time to time in the case of ordinary gasoline. They are of three different types. First of all the skin appears as though it had been dried, being somewhat wrinkled, with a tendency to cracking here and there. This I believe to be due to the extraction of the oily substances from the skin. In addition to this small pimple-like lesions are seen at points where the skin came in contact with either liquid or volatilized gasoline. The other injury seen from time to time resembles an ordinary burn. All of these injuries appear in the case of exposure to ordinary gasoline, and it is apparently a fact that some persons are much more susceptible than others. As for the ingredients of Ethyl Gasoline, we have failed to find evidence of any peculiar skin condition which results from exposure either to the concentrated materials or to their diluted form in gasoline.

Much the same situation is true in the case of the eye. Ingredients of Ethyl Gasoline are not as irritating as is the gasoline itself when introduced into the eye. When gasoline is splashed into the eye it produces an almost immediate irrita-

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tion of the conjunctiva and a sharp burning sensation. If the gasoline gets directly on the cornea it may produce a considerable amount of injury as though the cornea had been burned. In a few instances we have seen corneal ulcers result from this type of injury. However, in every instance I have seen, the ^{original} principal injury was secondary to an eye infection which followed upon and partly resulted from the irritation of the eye produced by the introduction of gasoline. Corneal ulcers appear every now and then in the case of any irritating substance introduced into the eye. There is no evidence that the small quantity of Ethyl Fluid in Ethyl Gasoline is capable of producing injury to the eye beyond that which is seen as due to the gasoline base.

As to the respiratory passages, we have not seen any evidence of injury due to Ethyl Fluid or Ethyl Gasoline. It is worth while in this connection to point out that under the ordinary conditions of gasoline evaporation the first ten to twenty percent of commercial Ethyl Gasoline which volatilizes contains no measurable quantity of lead. It does contain some small quantity of ethylene dibromide. I have never seen at any time an example of irritation of the bronchi or trachea from the inhalation of the vapors of any kind of gasoline. I have frequently observed, however, that workmen in refineries and elsewhere who are more or less continually exposed to the vapors of gasoline in general, have a tendency to congestion and oedema of the mucous membranes of the nose. To what extent this is due to gasoline and to what extent it is due to sulphur dioxide and other irritating materials which are handled along with gasoline, it is difficult for me to say.

I trust that the above information will give you suitable material with which to answer Dr. Carroll's letter. If he wishes to present any other questions to me I should be pleased to answer his correspondence.

Very truly yours,

RAK:EJ

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