



DUPONT DE NEMOURS & COMPANY
INCORPORATED

WILMINGTON, DELAWARE

April 24, 1939

MEDICAL DIRECTOR'S OFFICE

Dr. Robert A. Kehoe
University of Cincinnati
College of Medicine
Cincinnati, Ohio

My dear Doctor:

I have just received your letter of April 22 relative to the employe whom you recently examined and who has been engaged for a period of years in spraying lacquers in the manufacture of x-ray equipment.

Unfortunately, in this particular case I can give you no clue from the standpoint of the composition of the lacquers which you mention in the second page of this letter, for they are all made by competitive concerns and we have no way of knowing what solvents they use. I can say, however, that if this man's condition is due to his exposure, then we look to the solvent material which is contained in the lacquers themselves and the thinners which he has been using. The first one which may be giving trouble would be benzol and here, of course, you should have some indications in his blood picture by showing a reduction in reds and whites, especially the whites, with a disproportion in the percentage of polys and lymphocytes. This, of course, you can easily eliminate by the blood picture.

In general, the other solvents have a tendency to produce irritating effects upon the lungs, kidneys and liver, and manifest themselves by the usual clinical symptoms.

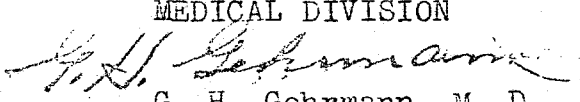
From the standpoint of the central nervous system it will be necessary to investigate the possibilities of carbon disulphide which might be responsible in this case for this man's changes in that particular region. The vascular changes, we are finding more and more, can be produced by many, many chemical compounds. We have found that many of them cause a marked drop in systolic pressure and either a slow rise to above 90 in the diastolic or a drop in the diastolic to as low as 45 and 50, with changes in the pulse pressure -- coming well down below 30. These changes have been pretty clearly indicated to us in utilizing the Crampton Test, and we have set a value of 35 upon our cases in which the test is tried.

From the standpoint of the solid ingredients in lacquers, other than lead, I think you need have no fear as we have pretty generally agreed, in our past experience with both the manufacture of the pigments themselves and their utilization in lacquers and enamels, that they do not show any marked effect upon those who are using them.

I am afraid I am not being of very great help to you, but if you would care to send us vascular changes and blood changes, if you think they are significant, we might be able to judge somewhat from these results as to what we think might be responsible for this man's condition.

Yours very truly,

MEDICAL DIVISION


G. H. Gehrmann, M. D.

Medical Director

GHG:MGL