

DIVISION OF SAFETY AND HYGIENE

NOVEMBER 2, 1950

PLAINTIFF'S
EXHIBIT
BRK-239

James H. Fluker, Superintendent
Division of Safety and Hygiene
Columbus, Ohio

In re: Moraine Products Division
General Motors Corporation
Dayton, Ohio

On November 2, 1950 the two undersigned members of the Division of Safety and Hygiene re-surveyed this plant for possible exposure to materials causing dermatitis. On April 20, 1950 both members also made a report on existing conditions in this plant and stated therein that the company had installed equipment to filter and sterilize the oils which were thought to be inducing dermatitis. The incidence of cases lessened by degrees but was not completely eliminated. It was learned that in Department 5 (Cast Iron Machining or Bearingizing) there were no cases of dermatitis at the time of this present visit; in Department 7 (Wheel Cylinder Assembly) on lines #2 and #3 there were no dermatitis cases on the date of this visit; and in Department 19 (Brake Shoe) only one man had a case of dermatitis on this date. The company places men who have developed dermatitis in some other area in this latter department so that they can be away from the oil and not subjected to recurrent exposures.

Practically all of the people who have experienced dermatitis have worked with a material consisting of diacetone alcohol to which is added from 10% to 20% castor oil. Parts are placed in this mixture for a leak testing operation. It is a part of a manufacturing process and, according to company officials, cannot be changed.

There are approximately 150 people working with this material and only a few cases of dermatitis have developed. The company immediately removes an employee from this operation who shows signs of dermatitis and places him on a job where there is no exposure to the material used there. The Medical Department treats the dermatitis and there have been no lost time on any of the cases to date.

The question was presented to the Management as to whether this diacetone alcohol could be eliminated and a substitute used in its place. The company officials stated that to the present time there is only this material which will definitely give a satisfactory inspection test and not be corrosive to the various parts being tested.

We present below from The Chemistry of Industrial Toxicology by Elkins the statement that diacetone alcohol, $(CH_3)_2 COCH_2 COCH_3$, has harmful effects including narcosis and possible kidney damage; and the Condensed Chemical Dictionary states that there are two grades

of diacetone alcohol, one of which is acetone-free.

The company stated that approximately 95% of the dermatitis cases cleared up when the skin was given consistent and thorough cleansing.

The foreman in the Department of Testing stated that he thought the castor oil might be a factor for when the pH of the castor oil is around 6.5 or less, it is on the acide side and some dermatitis had been experienced; when it is around 7.0 or at normal, or even on the alkaline side, no dermatitis appeared to develop. However, the writer feels that the castor oil is not a factor since the diacetone alcohol is of such a nature that it continually removes the natural oils from the skin and any type of oil, either castor or lanolin, would tend to be helpful rather than harmful.