



ARMOUR CHEMICAL DIVISION

ARMOUR AND COMPANY • 1355 WEST 31ST STREET • CHICAGO 9, ILLINOIS

July 26, 1954

Dr. R. E. Kelly,
Medical Director
Monsanto Chemical Company
St. Louis 4, Missouri

Dear Dr. Kelly:

Your letter of July 13th addressed to Dr. Hubata and then to Dr. McCorkle of our Chemical Division has been referred to this Department for handling. You indicate that you desire any toxicity information available on Armid O or Armid HT.

We have run limited tests on Armid HT which, of course, is quite closely related to Armid O. The following is a description of the testing that was done at that time.

"Feeding Tests on White Rats: Three separate lots of litter mates were given the regular stock diet to which 10, 25 and 50% Stearamide was added. Food consumption on the 50% diet was less than the other two lots, but all animals gained weight for the three month test period. No rats died from any cause during the period. No attempts were made to get litters from the test animals.

"At the completion of the tests all the animals appeared normal with glossy coats and clear eyes. The animals were posted with special attention being paid to liver, kidney, spleen, digestive tract and brain. Nothing unusual was found in any animal.

"At the conclusion of this preliminary test, which was completely negative, we reported the compound as non-toxic and have not seen a need to do a more extensive test on it. Had there been any abnormalities of any kind we would have set up a long-term generation test with a large number of animals, probably using feeding as well as other techniques."

We are also aware that one manufacturer of meat casings was able to procure approval from the Meat Inspection Divisions of the Department of Agriculture for the use of 2% of the product in their casings basis these results.

Feeding tests on another related compound---Armowax, which is methylene bis-stearamide---were as follows:

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"Guinea Pig Feeding Test - Armowax, powdered and mixed with laboratory rations. Two tests of four animals each were conducted for 14 and 30 days respectively.

"At the end of the test periods the average daily consumption of test material per animal was 2.6 and 2.3 grams respectively. In the progress of the 14 day test period one animal died. Post-mortem examination revealed pulmonary infection which is normally found in the colony at this time of the year.

"Rat Feeding Test: Four rats were tested for a 30 day period. The test material (Armowax) was mixed with laboratory chow and given daily. The routine economy procedure was followed in recording the amount of test material consumed. The average daily consumption over a 30 day period per rat was 2 grams.

"In order to allow comparison between the animals and equivalent human dosage, an approximation of the starting weights for the animals used is given:

Guinea Pigs.....	300-380 grams
Rats.....	220-290 grams

"Although this is not a final report, the above results indicate that in the amounts given under the different circumstances, no indications of toxicity are evident."

Unfortunately, we do not have any "approval" from the F.D.A. for any of these products. As far as we know, amides do not occur in human or animal metabolism.

We hope that these tests will be helpful to you although we realize that they do not give the whole picture. We are most interested in this work and would be more than happy to supply you with further information if desired.

Very truly yours,
ARMOUR CHEMICAL DIVISION

E. L. Rhoads, Jr.

E. L. Rhoads, Jr.,
Derivatives Department

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