



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 21 1987

005904

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Command: Evaluation of a metabolism study, a skin irritation/dermal toxicity study, and a mutagenicity study of a metabolite of Command.

FROM: Whang Phang, Ph.D. *Whang Phang 5/19/87*
Pharmacologist
Toxicology Branch/HED (769c)

TO: R. Taylor / J. Yowell, PM (25)
Registration Division (767c)

THROUGH: Marcia van Gemert, Ph.D. *M. van Gemert 5/20/87*
Head, Section III
and
Theodore M. Farber, Ph.D. *Theodore M. Farber 5/20/87*
Chief
Toxicology Branch/HED (769c)

The registrant, FMC, has submitted the following studies on FMC 57091 or on ortho-chlorobenzyl alcohol (OCBA):

1. Preliminary Pharmacokinetics Study in Rats (Accession No. 401236-03)
2. Skin Irritation / Dermal Toxicity Studies in Rabbits (Accession No. 401236-04)
3. Mutagenicity Study with Bacteria (Accession No. 401236-05)

These studies have been reviewed. Both studies No. 1 & 2 are found to be unacceptable, and study No. 3 has several pages which are not legible and which contain valuable data. A legible copy of this study should be requested from the registrant.

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Reviewed by: Whang Phang, Ph.D.

Section III, Tox. Branch (769c)

Secondary Reviewer: Marcia van Gemert, Ph.D.

Section III, Tox. Branch (769c)

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M. van Gemert 5/20/87

DATA EVALUATION REPORT

STUDY TYPE: Mutagenicity Study (Ames Test)

TOX. CHEM. No. ~~463B~~ 183L

ACCESSION No.: 401236-05

MRID No.:

TEST MATERIAL: FMC 57091

SPONSOR: FMC Corp.

CITATION: Haworth, S.R., et al. (1981). Salmonella/Mammalian-Microsome Plate Incorporation Mutagenesis Assay: FMC 57091. EG & G Mason Institute, Rockville, MD. EG & G Study No. 013-380-620-1; FMC Study No. A81-504. May 4, 1981.

CONCLUSION: The possible ability of FMC 57091 to cause gene mutation was tested on five strains of Salmonella typhimurium (TA98, TA100, TA1535, TA1537, & TA1538). The assays follow the methods described by Ames. The results presented in the report are not entirely legible, and proper evaluation of the data and classification of the study can not be carried out. A legible copy of the study is required.

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Secondary Reviewer: Marcia van Gemert, Ph.D.
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DATA EVALUATION REPORT

STUDY TYPE: Metabolism: Preliminary Pharmacokinetics
Study in Rats

TOX. CHEM. No. ~~4630~~ 183L

ACCESSION No.: 401236-03

MRID No.:

TEST MATERIAL: ^{14}C -Ortho-chlorobenzyl alcohol (^{14}C -OCBA)

SPONSOR: FMC Corp.

CITATION: Geiger, L.E. (1987). Preliminary Pharmacokinetic Study in Rats with ^{14}C -Ortho-chlorobenzyl Alcohol (OCBA). Toxicology Dept. FMC Corp. Princeton, NJ. March 10, 1987.

CONCLUSION: Three male and 3 female SD rats were orally administered ^{14}C -OCBA at a dose level of 5 mg/kg (approximately 15 μCi). There are many deficiencies in the study. There is no indication concerning the reported values whether they are the means or a single reading from a particular animal. In the absence of any explanation and any standard deviations, the reported results can only be considered as taken from a single animal. The position of the radiolabel on the test compound was never indicated. The study is unacceptable. A detailed data evaluation report will not be prepared for this study.

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DATA EVALUATION REPORT

STUDY TYPE: Skin Irritation/Dermal Toxicity
Study in Rabbits

TOX. CHEM. No. ~~4638~~ 1634

ACCESSION No.: 401236-04

MRID No.:

TEST MATERIAL: FMC 57091

SPONSOR: FMC Corp.

CITATION: Metha, C.S. (1981). Combined Rabbit Skin Irritation/Dermal Toxicity
FMC 57091 . Stillmeadow Inc., Houston, Texas. FMC Study No. A81-505.
March 20, 1981.

CONCLUSION: FMC 57091 was applied to both intact and abraded skin test sites of one male and one female New Zealand White rabbit. The chemical was applied as powder (0.5 mg) with 0.1 ml of saline solution for 24 hrs. The limited results indicate that FMC 57091 was a mild skin irritant, and no any other toxic effects were observed.

The study has many deficiencies which include insufficient number of animal used in the test. For a skin irritation study, at least 6 animals are required to derive any meaningful information about the dermal irritation effects of any chemical. For a dermal toxicity study, at least 5 animals/sex are necessary. In addition, the purity of the chemical and other relevant properties are not included in the report.

This study is unacceptable, and a detailed evaluation report will not be prepared for this study.

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