2-28-84

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

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

DATE: February 28, 1984

SUBJECT: EPA Registration No. 239-2452
Chevron Monitor Technical

FROM: Deloris F. Graham 3/6/84
FHB/TSS

TO: William Miller
Product Manager (16)

Applicant: Chevron Chemical Company
Ortho Agricultural Chemicals Division
940 Hensley Street
Richmond, CA 94804-0036

Active Ingredients:

Methamidophos	72%
Inert Ingredients	28%

Background: Submitted Acute Inhalation Study to fulfill data requirement. Study conducted by Mobay Chemical Corporation. Data under accession number 250925. Method of support not indicated. Dermal Sensitization Study to be submitted at later date.

Recommendation:

1. FHB/TSS finds these data acceptable to support conditional registration of this product.

2. The appropriate toxicity category for this study is IV - CAUTION.

Label:

1. Additional labeling comments may be necessary upon submission of the Dermal Sensitization Study.

Review:

1. Acute Inhalation Toxicity Study: Mobay Chemical Corporation; Report No. 394; June 28, 1983.

Procedure: Eight groups, four consisting of ten female rats each receiving one of the following doses: 60, 168, 259 or 196 mg/m^3; two consisting of ten male rats each receiving one of the following doses: 163 or 253 mg/m^3; two consisting of ten male and ten female rats each receiving one of the following doses: 160 or 310 mg/m^3. Four control groups, two consisting of ten male and ten female rats each and two consisting of five female rats each. Observations made one to five hours post exposure and twice daily thereafter for 14 days. Necropsy performed on all animals. Average particle size was 1.13 um. Temperature ranged from 22° to 35°C with relative humidity ranging from 26° to 59°C.

Results: At 60 mg/m^3, 1/10 F died; at 163 mg/m^3, 1/10M died; at 160 mg/m^3, 3/10M and 7/10F died; at a96 mg/m^3, 5/10M died; at 253 mg/m^3, 8/10M died; at 259 mg/m^3, 5/10F died; at 310 mg/m^3, 5/10M and 9/10F died. It was reported that cholinergic symptoms were observed in all exposed animals. Pathology revealed hemorrhagic cervical lymph nodes, congested lungs, and nasal turbinates, edema, propapsed penis with inflammation, dark red lungs, petechiae on the thymus, lacrimation, salivation, hydronephrosis of left kidney. Microscopic examination revealed heterotopic bone in the lungs, minimal pulmonary histiocytosis, mild to moderate pulmonary congestion, mild congestion in lymph node, minimal nephrocalcinasis, minimal chronic nephropathy, minimal solitary pulmonary granuloma. Gross and microscopic examination of control animals at necropsy revealed heterotopic bone in the lungs, minimal pulmonary histiocytosis, mininal chronic nephropathy, mild hepatic fatty change, miminal nephrocalcinosis, minimal chronic peribronchiolitis. One hour LC_{50} for males was reported to be 377 mg/m^3 with 95% confidence limits between 301 and 502 mg/m^3. One hour LC_{50} for females was reported to be 241 mg/m^3 with 95% confidence limits between 205 and 280 mg/m^3.

Study Classification: Core Guideline Data.

Toxicity Category: IV - CAUTION