DATA EVALUATION RECORD - SUPPLEMENT

XDE-570 (FLORASULAM)

Study Type: OPPTS 6200a [§81-8], Neurotoxicity Screening Battery in Rats

Work Assignment No. 4-01-128 A (MRID 46808217)

Prepared for
Health Effects Division
Office of Pesticide Programs
U.S. Environmental Protection Agency
2777 South Crystal Drive
Arlington, VA 22202

Prepared by
Pesticides Health Effects Group
Sciences Division
Dynamac Corporation
1910 Sedwick Road, Bldg 100, Ste B.
Durham, NC 27713

Primary Reviewer
David A. McEwen, B.S.

Signature: _____
Date: _____

Secondary Reviewer
Stephanie E. Foster, M.S.

Signature: _____
Date: _____

Program Manager:
Michael E. Viana, Ph.D., D.A.B.T.

Signature: _____
Date: _____

Quality Assurance:
Mary L. Menetrez, Ph.D.

Signature: _____
Date: _____

Disclaimer

This Data Evaluation Record my have been altered by the Health Effects Division subsequent to signing by Dynamac Corporation personnel

EPA Reviewer: Karlyn J. Bailey **Signature:** _____
Registration Action Branch 2, Health Effects Division (7509P) **Date:** _____
EPA Secondary Reviewer: Myron Ottley, Ph.D. **Signature:** _____
Registration Action Branch 3, Health Effects Division (7509P) **Date:** _____

Template version 02/06

DATA EVALUATION RECORD – SUPPLEMENT

See TXR # 0054348 for previous DER

This supplement contains:

- New cover page
- New executive summary

STUDY TYPE: Acute Neurotoxicity - Rats OPPTS 870.6200a [' 81-8]; OECD 424.

PC CODE: 129108 **DP BARCODE:** D331116
TXR#: 0054348

TEST MATERIAL (PURITY): XDE-570 (Florasulam; 99.3% a.i.; Lot # 940714)

SYNONYMS: XR-570, XRD-570, DE-570, N-(2,6-diflurophenyl)-8-fluoro-5-methoxy(1,2,4)triazolo(1,5-*c*)pyrimidine-2-sulfonamide

CITATION: Mattsson, J.L., R.J. McGuirk, and B.L. Yano (1997) XDE-570: Acute neurotoxicity in Fischer 344 rats. The Toxicology Research Laboratory, The Dow Chemical Company, Midland, MI. Laboratory Project Study ID: DR-0312-6565-022, January 6, 1997. MRID 46808217. Unpublished.

SPONSOR: Dow AgroSciences Canada, Inc. , 2100- 450 1 St. SW, Calgary, AB, Canada

EXECUTIVE SUMMARY - In an acute neurotoxicity study (MRID 46808217), groups of 10 fasted young adult Fischer 344 rats/sex/dose were given a single oral gavage dose of XDE-570 (Florasulam; 99.3% a.i.; Lot # 940714) in aqueous methylcellulose at dose levels of 0, 200, 1000, or 2000 mg/kg (limit dose) and were observed for 15 days. Neurobehavioral assessment (functional observational battery [FOB] and motor activity testing) was performed in all rats at one week prior to dosing and on Days 1 (approximately 6-7 hours post-dosing), 8, and 15. At study termination, 5 rats/sex/dose were euthanized and perfused *in situ* for neuropathological examination. The brain and peripheral nervous system tissues collected from the perfused animals in the control and 2000 mg/kg groups were subjected to histopathological evaluation. Positive control data were provided.

There were no compound-related effects on mortality, clinical signs, body weight, and gross or neuropathology observed at any dose.

In the 2000 mg/kg males, overall (Days 0-15) body weight gain was decreased by 21%, although body weight at termination was comparable to controls. This was attributed to a lower body weight gain (decr. 33%) in these animals during Week 1. Additionally in these animals, there was a slight transient decrease in motor activity, increased incidence of minimal activity in the open-field, and decreased reactivity to sharp noise on Day 1. However, the differences from control values did not exceed the historical controls and complete recovery occurred by the next test session (Day 8). When the FOB and motor activity findings were combined they were considered to be a treatment-related effect. As there were no corroborative gross or neuropathological findings to suggest a neurotoxic effect, this pattern of decreased activity was considered to be likely due to general malaise.

No treatment-related effects were observed in the females at any dose and the males at 1000 mg/kg or below.

No evidence of neurotoxicity was observed at any dose in either sex.

The systemic LOAEL is 2000 mg/kg (limit dose), based on decreased body weight gain in the males. The systemic NOAEL is 1000 mg/kg.

The neurotoxicity LOAEL was not observed. The neurotoxicity NOAEL is 2000 mg/kg (limit dose).

This study is classified as **acceptable/guideline** and satisfies the guideline requirement for Test Guideline OPPTS 870.6200a; OECD 424 for an acute neurotoxicity study in the rat.

COMPLIANCE - Signed and dated Data Confidentiality, GLP Compliance, and Quality Assurance statements were provided.