4-21-89

DATA EVALUATION RECORD

DPX-L5300 STUDY 7

SHAUGHNESSY No. 128887
COMMON NAME: DPX-L5300
CHEMICAL NAME: Methyl 2-[[[N-(4-methoxy-6-methyl-1,3,5-triazine-2-yl) methylamino] carbonyl] amino] sulfonyl] benzoate
FORMULATION: Active ingredient
DATA REQUIREMENT: Leaching and Adsorption/Desorption (163-1)

FICHE/MASTER ID 40245523
Cadwagan, G.E. and B. Atkins. 1986. Soil column leaching study with [triazine-2-^{14}C]DPX-L5300. Laboratory Project ID AMR-448-85. Prepared and submitted by E.I. du Pont de Nemours and Company, Inc., Wilmington, DE. No. 7F3540.

SUBST. CLASS = S

DIRECT RVW TIME = 7

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CONCLUSIONS:

Mobility - Leaching and Adsorption/Desorption

(1) This study is acceptable and partially satisfies the leaching and adsorption/desorption (163-1) data requirement by providing information on the mobility (soil column leaching) of triazine-labeled [^{14}C]DPX-L5300 and its triazine amine residues in Keyport silt loam soil. To completely satisfy the data requirement,

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acceptable data must be submitted on the mobility of triazine labeled [^{14}C]DPX-L5300 in 3 additional soils. Acceptable soil column leaching data on the mobility of phenyl labeled [^{14C}]DPX-L5300 in 4 soils including Keyport silt loam have been submitted (see study 6-MRID #00148653). Therefore, the additional mobility data should preferably be soil column leaching data for triazine labeled DPX-L5300 in the same soils as used in study 6.

(2) Triazine labeled [^{14}C]DPX-L5300, triazine amine and other triazine labeled degradates were only slightly mobile in unaged and aged (1 day) 12 inch Keyport silt loam (pH 4.4, organic matter 1.5%) soil columns eluted with 20 inches of water. Greater than 89% of the applied radioactivity remained in the upper 6 inches of both the unaged and aged soil columns. Less than 2.4% of the applied radioactivity was recovered in the eluate from either the unaged or aged columns.

SUMMARY OF DATA BY REVIEWER:

[^{14}C]DPX-L5300 (radiochemical purity 97.5%, specific activity 41.2 uCi/mg) and aged (1-day) [^{14}C]DPX-L5300 residues were slightly mobile (maximum 2.3% of the applied radioactivity in the leachates) in columns (10- to 12-inch length) of Keyport silt loam soil treated with unaged and aged (1-day) triazine-labeled [^{14}C]DPX-L5300 at 0.72 ounces ai/A (51 g/ha) and leached with 20 inches of water. The majority (89.8%% and 93.2% of the applied) of the radioactivity remained in the upper 6 inches of the unaged and aged DPX-L5300-treated columns, respectively. Only 2.3% and 1.0% of applied radioactivity were detected in the eluate from the unaged and aged column, respectively. In the top 6 inches of both the unaged and aged DPX-L5300-treated columns, 76.8-79.0% of the applied radioactivity was triazine amine (the main decomposition product of DPX-L5300) and 9.4-10.7% was parent DPX-L5300. Following leaching, 1.2-1.3% of the applied radioactivity was unextractable from the soil. [^{14}C]Residues in the leachates were not characterized.

DISCUSSION:

(1) The ^{14}C residues in the eluate were not characterized but represented only 1.0-2.3% of applied radioactivity.

(2) The distribution of ^{14}C residues in the soil column below 6 inches was not characterized, but residues in the upper 6 inches accounted for > 89% of applied radioactivity.

(3) The CEC for the Keyport silt loam soil was reported to be 1.95 meq/100 g. In the aerobic soil metabolism in this submission, the CEC of Keyport silt loam soil was reported to be 14.1 meq/100 g; in the field dissipation study, the CEC was reported to be 10.1 meq/100 g. Since a CEC of 1.95 meq/100 g is very low for a silt loam soil, it is the reviewer's opinion that the reported CEC may be an error.

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MATERIALS AND METHODS

Page _____ is not included in this copy.

Pages 4 through 23 are not included in this copy.

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