US EPA ARCHIVE DOCUMENT

108801

(5)

EEE BRANCH REVIEW

DATE: IN 12/8/76 OUT 12/15/76 IN _____ OUT _____ IN _____ OUT _____

FISH & WILDLIFE ENVIRONMENTAL CHEMISTRY EFFICACY

FILE OR REG. NO. 100 LIT

PETITION OR EXP. PERMIT NO. _____

DATE DIV. RECEIVED _____

DATE OF SUBMISSION 11-24-76

DATE SUBMISSION ACCEPTED _____

TYPE PRODUCT(S): I, D, (H), F, N, R, S Formulation Purposes (Technical)

PRODUCT MGR. NO. Jacoby

PRODUCT NAME(S) CGA-24705 (Tech)

COMPANY NAME Ciba-Geigy Ltd.

SUBMISSION PURPOSE Registration

CHEMICAL & FORMULATION 2-chloro-N-(2-ethyl-6-methyl phenyl)-N-(2'-methyl-1-methylethyl) acetamide

(GA-24705 (Tech)

Environmental Safety

100.1 Pesticidal Use
Technical product for formulation of herbicides

100.1 Application methods directions
N/A

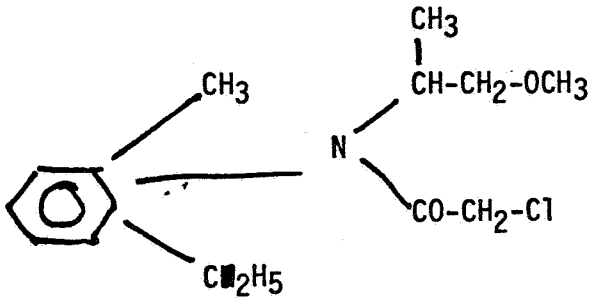
101.0 Chemcial and Physical Properties

101.1 Chemical Name:

Z-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methyl_1_methylethyl) acetamide

101.2 Common Name: CBA-24705 Tech

101.3 Structural Formula



$C_{15}H_{22}1OO_2Cl$

101.4 Molecular Weight: 283.80

101.5 Physical State
Liquid: white to tan, odorless

101.6 Solubilities
Water: 530 ppm at 20°C
Organic Solvents: Miscible with xylene, toluene, dimethyl formamide, methyl cellusolve, butyl cellusolve, ehtylene dichloride, and cyclohoxanone; insoluble in ethylene glycol and propylene glycol.

102.0 Behaviour in the Environment
See pesticide petition 5F1606

103.0 Toxicological Properties

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103.1 Acute Toxicity

103.1.2 Avian

Test. Acute oral LD_{50}
Species: Mallard Duck, Anas platyrhynchos
Resutls. LD_{50} = 4640 mg/kg (2398-9877)
Chemical: CGA-24705 Tech.
Title: Final Report: Acute Oral LD_{50} - Mallard Duck
Accession: 226955
Study Date: May 19, 1976
Researcher: Truslow Farms Inc.
Submission: 100-LIT-CIBA-GEIGY 11-24-76
Test Acceptability: This study meets the requirements for the acute oral LD_{50} for a wild waterfowl species. 14 day old birds used as test specimens (must supply rationale since standard calls for greater than 16 weeks. HTC

103.1.3 Fish

Test: 96 hr static bioassay
Species: Rainbow Trout, Salmo gairdner; and bluegill sunfish, Lepomis macrochirus
Results: LC_{50} - 2 ppm - Rainbow Trout No confidence limits
15 ppm - bluegill sunfish
CARP - 4.9 ppm
catfish - 4.9 ppm
Guppy - 1.6 ppm
Chemical: CGA-24705, tech.
Title: Acute Toxicity to Rainbow Trout, Crucian Carp, Channel Catfish, Bluegill, and Guppy of Technical CGA-24705
Accession: 094220
Study Date: January 4, 1974
Researcher: CIBA-GEIGY Ltd.
Submission: 100-LIT-CIBA-GEIGY 11-24-76
Test Acceptability: This study is acceptable and meets the requirements for the acute LC_{50} for a cold water and warm water fish. Note: Age of test fish was not reported. Test water temperature for bluegills was too low (14 = 2oC). It should have been higher near 22°C. Control fish survival not reported. must request information HTC

103.1.4 Aquatic Invertebrate

Test: Acute 48 hr LC_{50} for an aquatic invertebrate
Species: Water flea, Daphnia magna
Resutls: LC_{50} - 25.1 (21.6 - 29.2) mg/L
Chemical: CGA-24705 Technical
Title: Acute Toxicity of CGA-24705 Technical to the water flea, Daphnia magna
Accession #: 226955
Study date: May 26, 1976
Researcher: Aquatic Environmental Sciences, Union Carbide Corp.

Submission: 100 LIT-CIBA-GEIGY 11-24-76
Test Acceptability: This study meets the requirements for the acute 48 hr LC50 for an aquatic invertebrate.

103.2 Subacute Toxicity
Test: 8 day dietary LC_{50}
Species: Bobwhite Quail, Mallard Duck
Results: LC_{50} = > 10,000 ppm for both species
Chemical: CGA-24705 Tech.
Title: Eight day dietary LC_{50} - Bobwhite Quail, Mallard Duck
Technical CGA-24705
Final Report
Accession #: 094220
Study: Date: August 5, 1974 (Both studies)
Researcher: Truslow Farms Incorporated
Submission: 100-LIT-CIBA-GEIGY 11-24-76
Test Acceptability: This study meets the requirements for the subacute dietary LC_{50} for one species of upland game bird and one species of wild waterfowl.

104.0 Hazard Assessment

104.1.1 Adequacy of toxicity data

104.1.1 Adequacy of toxicity data.
Data is adequate. Recommend that future LC_{50} data submitted on fish report age of test specimens and mortality/survival rate in controls.

104.1.2 Additional Data required
None required

104.1.3 Likelihood of exposure to non-target species: CGA-24705 technical is for formulations purposes only. If this product is utilized in the manner for which it is intended, the risk to fish and wildlife is practically non-existant. The only possible danger might arise from accidental spillage during transportation.

105.0 Conclusions
The Environmental Safety Revew Staff finds no objection to the registration of CGA-24705 technical.

Gerald L. Gavin Jr.
Environmental Safety Review Staff
EEEB