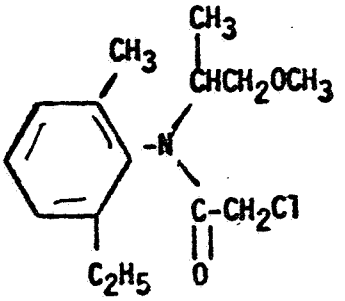
PP# 5G1553

Experimental Permit for New Chemical; CGA-24705; with Petition 5G1553; Submitted 9-11-74 (Herbicide) 11/8/74

Coordination Branch

Introduction

The "new" CAS name is 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)acetamide. A letter from CAS Nomenclature Director is submitted. The only trade name is CGA-24705.



Manufacturing Process (technical)

Equivalent amounts of 2-ethyl-6-methylaniline and methoxy acetone are mixed in a suitable organic solvent with a hydrogenation catalyst. Stir under hydrogen pressure until hydrogen uptake is shown by drop in hydrogen pressure. Remove catalyst and solvent. Then the alkylated aniline is reacted with chloroacetylchloride (in base) to yield CGA-24705.

Storage Stability (Formulation)

6EC has shelf life of 7 weeks at 70°C or 24 weeks at 50°C. This is satisfactory.

% Composition of technical chemical

		% By Weight
Active Ingredient		
CGA-24705:	2-Chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)acetamide	90 (min)

Other Compounds	% By Weight
[redacted]	

Inert ingredient information deleted.

Method fof analysis for impurities in technical chemical

No method is given. RD must ask for details, although it is probable that TLC was used. This is not a strict requirement for a permit.

Methods of analysis for act. ing. in formulation

The EC is analyzed by a GLC method using a flame ionization detector. Dipropyl phthalate is used as internal standard. The method (PA-9) has been sent to TSD (BIB), Beltsville, Md.

Properties of technical chemical

off-white liquid
odorless
Boiling Point: 100°C at 0.001 mmHg
Vapor Pressure: ca 10^{-5} mmHg
Specific Gravity: 1.117

Solubility

Water 530 ppm @ 20°C

Miscible with organic solvents such as xylene, toluene, DMT, Methyl Cellusolve, Butyl Cellusolve, ethylene dichloride, and cyclohexanone. Insoluble in ethylene glycol and propylene glycol.

Amount to be shipped

1,002 lb. act. ing. 167 gallons 6EC

Proposed tolerance(s) (temporary)

0.75 ppm in corn forage, fodder.
0.05 ppm in fresh corn, corn grain.
0.02 ppm in eggs, milk, meat, fat, and meat by-products of cattle, goats, hogs, horses, poultry and sheep.

Use Pattern

Corn

3.0 lb. act/A CGA-24705 Preemergence, surface application

and/or TANK MIX

2.25 lb. act/A CGA-24705 + 2.0 lb. act atrazine Preemergence surface application

Conclusion

RD has sufficient chemistry information to issue this permit.

Recommendation

It is recommended that the permit should be issued when the temporary tolerance is published. RD should ask for the analytical methods used to determine the impurities in the technical chemical.

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cc:
PP# 5G1553
CB(3)
Reg. Jct.

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RD/I-ELGunderson: 11/6/74