

REVIEW SUMMARY

013803

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ECOLOGICAL EFFECTS BRP
REVIEW SUMMARY

Chemical trade name Ansar 529

Common name MSMA

Chemical monosodium acid methanearsenate

Company Ansar

Submission TEMP PERMIT 6308-EXP PETITION 5615 REGISTRATION 361357

Date submitted

Date received 12/6/78

Type of chemical herbicide

Use sugar cane (Tex & La.), wheat

Data submitted for review

Environmental safety:

Mammal LD50 _____

mammal chronic _____

Fish _____

Bird _____

Shrimp, crab, oyster _____

Other _____

Environmental chemistry (70-15)

Fish residue _____

Other _____

BEST AVAILABLE COPY

Chemical MSMA

Conclusions:

1. toxicity difference in aquatic organisms between pure MSMA, Arvan 529 and Dacronate is probably due [REDACTED]
2. sugarcane - La. + Tex. only, 2-4 lbs ai/A, max of 2 applications, do not apply after June 1, want 216 lbs ai (36 gal) - half goes to Tex + half to La.
3. wheat - for wild oats, foxtail + wild mustards (these are only a problem in Minne., Mont., N.D., S.D., Wash., Ore., Neb., Idaho), treat before 4th leaf stage, use 2-3 lbs ai/A; want 107 gal. (642 lbs ai); most testing to be done Feb 1 - June 15.

Recommendations

NAC 12/6/74 JFE

chemical MSMAOrtation Ansul

Reg. No. _____

Exp permit no. 6308-EXPPetition no. 361357
5615

Accession NO _____

Submission date 12/6/74

ORGANISM	TEST	LD ₅₀	LC ₅₀	LC ₅₀ Aquatic			TEST MATERIAL
			Dietary	24 hr	48 hr	96 hr	
Rat		1.8g/kg (1.6-2.0g/kg)		95%	C.I.		35% MSMA equiv.
Mallard	8 day subacute	1.8g/kg	>5,000 ppm				51.3%
Bobwhite	8 day subacute	1.8g/kg	3300 ppm (95% CI 1941-5610 ppm)				51.3%
Rat		1.8g/kg (1.5-2.2g/kg)		95%	C.I.		Ansar 170 MSMA 52.65% equiv.
Bluegill				>1000	>1000		pure MSMA
Bluegill				37.9	/	31.1	Ansar 529 (34.8%)
fathead minnow				16.2		13.4	Ansar 529 (34.8%)
longnose killifish			N.E. at 40 ppm				Ansar 170 (51.3%)
"			NE at 40 ppm				Ansar 184 (63%)
Oysters			NE at 1.0				Ansar 170
"			NE at 1.0				Ansar 184
pink shrimp			NE at 1.0				Ansar 170
"			NE at 1.0				Ansar 184
Bluegill				45.0	40.0		Daconate (34.66%)

Chemical MSMA

Citation Ansn/

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ORGANISM	DOSE	SYMPTOM / EFFECT	TEST MATERIAL
Rat 90-day	100 ppm	N.E. → body weight, food consumption, hematology, urinalysis, organ weights, histological observations	Tech
dog 90 day	30 ppm	N.E. → body weight, food consumption, hematology, liver & kidney function, urinalysis, organ weights, tissue histology	Tech