Department of Pesticide Regulation

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MEMORANDUM

TO: Tobi Jones, Assistant Director
Doug Okumura, Assistant Director

FROM: Paul Gosselin
Chief Deputy Director
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DATE: November 16, 2004

SUBJECT: HYDRAMETHYLNON RISK MANAGEMENT DIRECTIVE

The final risk characterization document for hydramethylnon dated January 20, 2004, did not identify any unreasonable risks from the uses of hydramethylnon in California. We will not take any immediate regulatory steps in light of the current uses.

Please take appropriate measures to direct staff to base evaluations of risks to hydramethylnon on short-term (acute) exposures not exceeding 3 mg/kg/day, and long-term exposures (seasonal and chronic) not exceeding 1 mg/kg/day.

Table 27. Critical NOELs and endpoints for the risk characterization of hydramethylnon by DPR and U.S. EPA.[a]

Route of Exposure	DPR		U.S. EPA[b]	
	Duration[c]/ population	**NOEL[d]/ endpoint**	**Duration[c]/ population**	**NOAEL[d]/ endpoint**
Dietary	Acute - general population	3 mg/kg/day (0.3 mg/kg/day) Decreased body weight, clinical signs, reduced fertility in a rat oral study (Harnois, 1979)	Acute - women of child bearing age only	5 mg/kg/day Abortions in a rabbit oral study (IRDC, 1982d*)
	Chronic - general population	1 mg/kg/day (0.1 mg/kg/day) Clinical signs in a dog oral study (Marshall, 1980)	Chronic - general population	1.66 mg/kg/day Testicular effects in a rat oral study (Schroeder, 1975)
Dermal	Acute - residents and workers	50 mg/kg/day (1.8 mg/kg/day) Decreased food consumption in a rabbit dermal study (Thompson, 1982*)	All residential dermal exposures	1.66 mg/kg/day (0.017 mg/kg/day) Testicular effects in a rat oral study (Schroeder, 1975)
	Subchronic- residents and workers	50 mg/kg/day (1.8 mg/kg/day) Decreased food consumption in a rabbit dermal study (Thompson, 1982*)		
	Chronic- residents and workers	1 mg/kg/day (0.1 mg/kg/day) Clinical signs in a dog oral study (Marshall, 1980)		
Inhalation	All durations	not assessed	All residential inhalation exposures	1.66 mg/kg/day (1.66 mg/kg/day) Testicular effects in a rat oral study (Schroeder, 1975)

a/ *Study was considered acceptable to DPR according to FIFRA guidelines. Schroeder, 1975 supplemented an unacceptable reproductive toxicity study (Bio/dynamics, Inc., 1982) to fill the SB 950 data requirement.

b/ NOELs/endpoints were from U.S. EPA (2003). While U.S. EPA developed reference concentration for inhalation exposure, this route was not assessed in their risk assessments.

c/ DPR defined acute, subchronic, and chronic duration for workers and residents as single to few days, 60 days per season, and 60 days in a year. U.S. EPA defined these durations: short-term (1 to 30 days), intermediate-term (1 to 6 months), and long-term (several months to lifetime).

d/ For the DPR NOELs, the absorbed doses in parentheses were based on 10% and 5% for oral and dermal absorption factors, respectively, and amortized for daily exposure. For the U.S. EPA NOAELs, the absorbed doses in parentheses were based on 1% and 100% for dermal and inhalation absorption factors, respectively.