



Department of Pesticide Regulation



Brian R. Leahy
Director

MEMORANDUM

Edmund G. Brown Jr.
Governor

TO: Dr. Marylou Verder-Carlos
Assistant Director
Pesticide Programs Division

HSM-16006

(No. assigned after issuance of memo)

FROM: Lisa Ross, Ph.D.
Environmental Program Manager II
Chief, Worker Health and Safety Branch
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[Original signed by L. Ross]

DATE: January 15, 2016

SUBJECT: COMPLETION OF CYANAZINE MITIGATION

Cyanazine is an herbicide used for pre- and post-emergence control of annual grasses and broadleaf weeds in corn, cotton, grain sorghum, winter wheat, and fallow cropland. Cyanazine entered the risk assessment process with concerns about developmental toxicity and cancer risk. Department of Pesticide Regulation staff completed a risk assessment in 1997.

A Margin of Exposure or MOE of at least 100 is generally considered adequate to protect people from the toxic effects of a chemical when the No Observable Effect Level is based on toxicology data from animal studies. MOE values were calculated using currently available acute exposure and toxicity data. Mean, short-term worker exposure data resulted in MOE values above 100 for both farmers and commercial applicators when calculated using abnormalities in the rabbit fetus as the toxicological endpoint. An estimated 95th percentile of acute exposure gave MOE values below 100 for these workers. Long-term occupational exposure data resulted in MOE values above 100 for both farmers and commercial applicators when calculated using weight loss in a rat chronic study as the toxicological endpoint. Excess lifetime cancer risk was greater than 10^{-5} but less than 10^{-4} for commercial applicators and greater than 10^{-6} but less than 10^{-5} for farmers. Based on available toxicity and residue data, the MOE values for potential acute (daily) and chronic (annual) dietary exposure, for all commodities for which U.S. Environmental Protection Agency tolerances have been established, were above 100 for all population subgroups studied. The excess lifetime cancer risk for the general population was greater than 10^{-6} but less than 10^{-5} . No mitigation of risks is necessary at this time because no products containing cyanazine are currently registered in California. However, if products containing cyanazine are registered in the future, a risk assessment should be considered. Your approval of this conclusion is requested.

cc: Kevin Solari, Environmental Program Manager I (Supervisory)

APPROVAL

[Original signed by M. Verder-Carlos]
Marylou Verder-Carlos, Assistant Director

January 25, 2015
Date