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OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

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MEMORANDUM

SUBJECT: Review of Diuron Poisoning Incident Data Chemical: #035505

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BACKGROUND

In response to the request that Health Effects Division Epidemiology Group review the incident data on diuron, the following data bases were reviewed for the poisoning incident data on the active ingredient **diuron**.

1) **OPP Incident Data System (IDS)** - reports of incidents from various sources, including required Federal Insecticide Fungicide and Rodenticide Act (FIFRA) Section 6 (a) (2)registrants, other federal and state health and environmental agencies and individual consumers, submitted to OPP since 1992. Reports submitted to the Incident Data System represent anecdotal reports or allegations only, unless otherwise stated. Typically no conclusions can be drawn implicating the pesticide as a cause of any of the reported health effects. Nevertheless, sometimes with enough cases and/or enough documentation risk mitigation measures may be suggested.

2) **American Association of Poison Control Centers (AAPCC)** - as the result of Data-Call-Ins issued in 1993, OPP received Poison

For the same time period, national AAPCC data showed 2 children were seen as outpatients and one had minor symptoms.

III. California Pesticide Illness Surveillance Program

Case reports (1982-1999) are described in investigations by the Worker Health and Safety Branch or the Department of Pesticide Regulations of the California Environmental Protection Agency.

Of a total of 65 reported California incidents in which health effects were definitely, probably or possibly attributed to exposure to diuron, 8 were for diuron alone and the remainder could not be determined as there were mixtures of diuron and paraquat, simazine, terbacil, bromacil, dinoseb, amitrole, glyphosate, fenthion, formaldehyde, trichlorfon, oxyfluorfen, hexazinone, chlorpropham, dicofol, dieldrin, dimethoate, toxaphene, atrazine, sulfometuron methyl, 2,4-D, thidiazuron, ethephon, oryzalin, maneb, isoxaben, oryzalin, chlorsulfuron, diquat, lime-sulfur, myclobutanil, propargite, sulfur, petrolium oil, carbaryl, or fluvlainate.

The 8 cases with diuron alone had no days lost from work, except where noted and include the following:

1982-1565 is a case ranked probable for an applicator with eye effects when the top of a hand sprayer blew off.

1983-362 is a case ranked probable for an applicator with eye effects, dizziness and choking when wind blew fumes in his face.

1983-570 is a case ranked possible for eye effects for an applicator who developed minor irritations although he was wearing goggles.

1983- 2716 is a case ranked probable for system effects in an applicator who apparently swallowed the compound while spraying. The applicator developed chemical pharyngitis.

1986-172 is a case ranked definite for eye effects in a mixer/loader. Some wettable powder blew into his eyes while he was loading a spray tank. No goggles were worn.

1990-623 is a case ranked possible for skin effects, including rash on the face, neck, arms, and groin. Hives developed while he was cutting asparagus.

1991-2403 is a case ranked possible for respiratory and systemic effects in a worker who was leading a tour of a

warehouse when a gust of wind blew some dust from a pallet of diuron bags toward her. She inhaled some of the dust and experiences coughing, respiratory irritation, sore throat, nausea and headaches. She was off work for one day as a result of the incident.

1997-1405 is a case ranked possible for skin, respiratory and systemic effects, including an itchy and painful rash on the neck, forearms, and legs, coughing, sore teeth and gums and burning muscles. A retail nursery worker developed these symptoms after working in a treated area. She registered a complaint, and she sought medical attention.

IV. National Pesticide Telecommunication Network (NPTN)

In the 1984-1991 inclusive NPTN ranking of the top 200 active ingredients, diuron is ninty-third in the NPTN ranking with grand totals of 37 human incidents and 6 animal incidents, among 187 calls, 51 incidents and 8 others.

V. Conclusions and Recommendations

As indicated by the above pesticide poisoning incident data review, the number of poisoning incidents for diuron alone is relatively small in any one surveillance system. Also, the poisoning incidents are scattered in time and location, and many of the incidents involve diuron use with mixtures. Therefore, it is not possible to draw many conclusions.

However, a cautionary note is raised by the last diuron IDS incident involving schools. The EPA has a separate initiative to reduce the use of pesticides in schools and foster use of integrated pest management (IPM). If diuron is associated with other poisonings in schools, consideration should be given to label language modifications such as this chemical should not be used in and around schools.

cc: Correspondence
Diuron(chemical: 035505)
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