

## **Mecoprop reality-check**

By Paule Hjertaas, B Sc.

January 8, 2005

I wish to respond to the letter on *Proper Use of Mecoprop Safe for Humans published in the Jan 7, 2005 Star Phoenix*. There are several important points to be discussed.

### **1. It is illegal to say or imply that a pesticide is safe because it is registered**

The illegal statement of mecoprop safety "*the agency...determined that the product does not present a human health risk when used according to label instructions.*" should be reported to the Auditor General of Canada for investigation. It is a clear and illegal inference of safety because of registration.

The Canadian regulatory system recognizes pesticides as dangerous. In fact, advertising of pesticides as safe, even when used as directed, is illegal under Canadian and U.S. law. (8a) The second restriction is more specific. The Pest Control Products Regulations (8b) specify that "*words stating, implying or inferring that a control product is approved, accepted or recommended by the Government of Canada or by any department or agency thereof shall not appear on a package or label or in any advertisement respecting a control product.*"

### **2. All registered Canadian domestic products contain the untested form of mecoprop**

When one looks at the Canadian registered mecoprop products, one notices that several of the agricultural (commercial) products have already switched to the approved mecoprop-p. However, out of the currently 42 mecoprop products registered in Canada for domestic use, **ALL** currently contain the mixed isomer form which is being discontinued because it does not meet the safety testing requirements of the PMRA. (2) You can identify it on the label by the **(+/-)** sign following "MECOPROP PRESENT AS AMINE SALTS" in the example below:

"MECOPROP PRESENT AS AMINE SALTS **(+/-)**-2-(4-CHLORO-O-TOLYOXY)PROPIONIC ACID"

### **3. Mecoprop safety studies have been under suspicion**

Mecoprop was first registered in 1960 in Canada and in 1964 in the U.S.(2). When the IBT scandal came to light in 1977, a lot of questions were raised about the safety data submitted to regulatory agencies (U.S. EPA, and the PMRA in Canada). At that time the US EPA, answering a request under the Freedom of Information Act, had to release a long list of pesticides for which the safety data was now suspicious, as IBT laboratories had performed the experiments.

**Mecoprop, under the synonym MCPP, was on that list.** The U.S. EPA issued its first registration standard only in late 1980. 'In effect,' E.P.A. told the court in 1981, '**the agency is considering all new registrations are conditional until data gaps identified by the registration standard are filled and the products are 'reregistered' under the standard...**' The registered products which were granted registration **prior to 1978 are also subject to the Registration Standard review...** These products will also be subject to 'reregistration' once all the data gaps have been satisfied.' (1)

### **4. What does it mean that the manufacturers is replacing mecoprop by mecoprop-p?**

Industry chose not to re-register mecoprop because there were too many safety data gaps needed for re-evaluation.(7) Basically, it would be too expensive to do the research.

It means that this product, mecoprop, which will still be sold retail in Canada until 2009 (7), (not 2005 as the article mentions) has never had the safety data needed for registration purposes. It kept being sold without any restriction or suspension without these data. In Canada, as in the U.S., I suspect the registration had to be considered "**conditional until data gaps identified by the registration standard are filled and the products are 'reregistered' under the standard...**" (1), however:

- no one knew about that conditional registration status, or what data were missing
- now that we know, Canada will still allow the retail sale until 2009

- as a home owner, you get the wrong end of the stick as ALL domestic products still contain the untested form of mecoprop, and likely will until 2009.

According to the PAN pesticide data base (3), mecoprop-p, the new approved form, is still acutely toxic, and a possible carcinogen. Its effects on endocrine disruption, as a developmental or reproductive toxin, and acute aquatic toxicity have not yet been assessed properly. As neither Canada nor the US mandate any studies on endocrine disruption, low dose effects, or developmental toxicity for this product, no study on these health effects have been submitted by registrants.

**5. Formulants in mecoprop** (list found on Mecoprop fact sheet from NCAP: [http://www.pesticide.org/mecoprop\\_MCPP.pdf](http://www.pesticide.org/mecoprop_MCPP.pdf)) (5)

A pesticide is rarely used by itself. Many formulants (called inerts in the U.S.) have been reported in U.S. mecoprop formulations. While all of them are listed on the PMRA current formulants list, (6) most formulants are considered secret information in Canada, so we don't know if either of them are used in Canadian registered mecoprop formulations. However, it is logical to think that one or several may be. Several are mutagens, some cause severe eye and skin irritations, liver and kidney damage, muscle weakness, one is a carcinogen, and one reduces fertility.

Ignorance is not equivalent to safety. How can anyone infer safety from such a record?

#### **References:**

1. *A Bitter Fog Herbicides and Human Rights*; Carol Van Strum; Sierra Club Books, San Francisco; 1983. The quote is from *Merrell v. J. R. Block, et al* (U.S. D.C. Oregon) Civil No 81-6138-E. Defendants' November 9, 1981, motion for summary judgment.
2. PMRA site, mecoprop labels, right hand side box (extra info): <http://www.eddenet.pmra-arla.gc.ca/4.0/4.1.asp>
3. *panna.org* Search the database on the right hand side
4. *Mecoprop*; Meg Sears
5. Mecoprop fact sheet from NCAP [http://www.pesticide.org/mecoprop\\_MCPP.pdf](http://www.pesticide.org/mecoprop_MCPP.pdf)
6. PMRA formulants list REG 2004-01 <http://www.hc-sc.gc.ca/pmra-arla/english/pdf/reg/reg2004-01-e.pdf>
7. PMRA decision on racemic mecoprop <http://www.hc-sc.gc.ca/pmra-arla/english/pdf/rrd/rrd2004-09-e.pdf>  
 "Beyond 2005, **sales of existing end-use products in the possession of those other than the registrant as well as use of end-use product by users is permitted until 31 December 2009 when the registrations will be cancelled.**"
- 8a. "Environment Label Claims and Advertising of Pest Control Products"; (DIR96-02) March 15, 1996 - 41Kb; <http://www.pmra-arla.gc.ca/english/pdf/dir/dir9602-e.pdf>
- 8b. PCPA regulations C.R.C.,c.1253, section 51c

In the interest of truth and safety, I hope you will publish this letter.

Sincerely yours,

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Appendix (for your information, does not need to be printed)

#### **Inert Ingredients listed for mecoprop (5)**

Hazards posed by inert ingredients in household mecoprop-containing

herbicides<sup>1</sup> include the following:

**Morpholine** is a severe eye and skin irritant. It is labeled as a “mutagen” by the National Institute for Occupational Safety and Health because it caused genetic damage in laboratory tests. It also damaged the liver and kidney.<sup>2</sup> (CAS: 110-91-8, list 3)

**8-hydroxyquinoline sulfate** is labeled as a “mutagen” by the National Institute for Occupational Safety and Health because it caused genetic damage in human blood cells.<sup>3</sup> (CAS 134-31-6, list 3)

**Methyl carbitol** reduced fertility in laboratory tests.<sup>4</sup> (CAS 11-77-3, list 3)

**Hexylene glycol** is a severe eye irritant. It also reduced the functioning of the kidneys and caused muscle weakness in laboratory tests.<sup>5</sup> (CAS 107-41-5, list 3)

**Quartz silica** is classified as a carcinogen by the International Agency for Research on Cancer. The National Institute for Occupational Safety and Health labels it as a “mutagen” because it caused genetic damage in laboratory tests.<sup>6</sup> (CAS14809-60-7, list 2)

1. U.S. EPA. 2004. Response to Freedom of Information Act request RIN-1178-99. Received by NCAP in February 2004.

2. National Institute for Occupational Safety and Health. 2002. Registry of Toxic Effects of Chemical Substances: Morpholine. [www.cdc.gov/niosh/rtecs/qd62ccf8.html](http://www.cdc.gov/niosh/rtecs/qd62ccf8.html).

3. National Institute for Occupational Safety and Health. 1997. Registry of Toxic Effects of Chemical Substances: 8-Quinolinol, sulfate (2:1) (salt). [www.cdc.gov/niosh/rtecs/vc7e09a0.html](http://www.cdc.gov/niosh/rtecs/vc7e09a0.html).

4. National Institute for Occupational Safety and Health. 2002. Registry of Toxic Effects of Chemical Substances: Ethanol, 2-(2)methoxyethoxy)-. [www.cdc.gov/niosh/rtecs/kl5d75c8.html](http://www.cdc.gov/niosh/rtecs/kl5d75c8.html).

5. National Institute for Occupational Safety and Health. 2002. Registry of Toxic Effects of Chemical Substances: 2,4-pentanediol, 2-methyl-. [www.cdc.gov/niosh/rtecs/sac5c10.html](http://www.cdc.gov/niosh/rtecs/sac5c10.html).

6. National Institute for Occupational Safety and Health. 2002. Registry of Toxic Effects of Chemical Substances: Silica, crystalline-quartz. [www.cdc.gov/niosh/rtecs/vv6fd8d0.html](http://www.cdc.gov/niosh/rtecs/vv6fd8d0.html). » (6)

### **Extra Resources:**

Mecoprop fact sheet from NCAP [http://www.pesticide.org/mecoprop\\_MCPP.pdf](http://www.pesticide.org/mecoprop_MCPP.pdf)

Researching Health Effects of Pesticides on the Web (NCAP)

<http://www.pesticide.org/ResPHealth.html>