Pest Management Regulatory Agency
Agence de réglementation de la lutte antiparasitaire

Proposed Acceptability for Continuing Registration

PACR2004-28

Re-evaluation of Disodium Cyanodithioimidocarbonate

The purpose of this document is to inform registrants, pesticide regulatory officials and the Canadian public that the Pest Management Regulatory Agency (PMRA) has completed a re-evaluation of disodium cyanodithioimidocarbonate (DCD). The PMRA has determined that DCD is acceptable for continued registration provided that the proposed mitigation measures are adopted. Additional data requirements are identified.

This Proposed Acceptability for Continuing Registration (PACR) document provides a rationale for the proposed regulatory decision for DCD. The PMRA will accept written comments on this proposal up to 45 days from the date of publication of this document. Please forward all comments to the Publications Coordinator at the address below.

(publié aussi en français)

15 July 2004

This document is published by the Alternative Strategies and Regulatory Affairs Division, Pest Management Regulatory Agency. For further information, please contact:

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Information Service:
1 800 267-6315 or (613) 736-3799
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ISBN: 0-662-37689-7 (0-662-37690-0)
Catalogue number: H113-18/2004-28E (H113-18/2004-28E-PDF)

1.0 Background

The PMRA is re-evaluating all pesticides, both active ingredients and formulated end-use products (EPs), that were registered prior to 31 December 1994 to ensure that their continued acceptability is examined using current scientific approaches. Regulatory Directive DIR2001-03, *PMRA Re-evaluation Program*, presents the details of the re-evaluation activities and program structure.

DCD has been re-evaluated by the PMRA under Re-evaluation Program 1 as described in DIR2001-03. Under Program 1, the PMRA relies as much as possible on foreign reviews, typically United States Environmental Protection Agency (USEPA) Reregistration Eligibility Decision (RED) documents, to assess Canadian pest control products. For products to be re-evaluated under Program 1, there must exist a suitable foreign review that meets the following conditions:

- it covers the main science areas, such as human health and the environment, that are necessary for Canadian regulatory decisions;
- it addresses the active ingredient and the main formulation types registered in Canada; and
- it is relevant to registered Canadian uses.

Based on the outcome of foreign reviews, the PMRA will propose, under Program 1, a regulatory decision and appropriate mitigation measures for Canadian uses of an active ingredient.

The USEPA conducted a re-evaluation of DCD and concluded that, on the basis of health and environmental risk assessments, it was eligible for reregistration with implementation of mitigation measures. These conclusions were published in a 1994 RED document for DCD. In its re-evaluation of DCD, the PMRA based its conclusions on this 1994 RED document, taking into account the Canadian use pattern and Canadian issues (e.g., the federal Toxic Substances Management Policy [TSMP]). A review of the chemistry of Canadian products was also conducted.

2.0 Re-evaluation of DCD

Active substance:	Disodium cyanodithioimidocarbonate
Chemical name:	
IUPAC:	Disodium cyanodithioimidocarbonate
CAS:	Imidocarbonic acid, cyanodithio-, sodium salt
CAS Number:	138-93-2

In Canada, DCD was first registered in 1973. According to current EP labels, it is registered in Canada for control of slime in paper mills and for treatment of secondary recovery water in the petroleum industry. It is also used to inhibit the growth of algae, bacteria and fungi in recirculating commercial and industrial cooling water systems and water cooling towers. Currently registered Canadian products containing DCD are listed in Appendix I.

Based on the comparison of American and Canadian use patterns, the USEPA assessment described in the RED document for DCD is considered to be an adequate basis for the proposed Canadian re-evaluation decision. The details of the assessments conducted by the USEPA are presented in the USEPA RED for DCD.

The federal TSMP and Regulatory Directive DIR99-03 were taken into consideration during the review of DCD, and it was concluded that DCD is not a TSMP Track 1 substance. Impurities of toxicological concern as identified in Regulatory Directive DIR98-04 or TSMP Track 1 substances as identified in Appendix II of DIR99-03 are not expected to be present in the starting materials used to manufacture the product, nor are they expected to be formed during the manufacturing process.

3.0 Proposed re-evaluation decision

The USEPA published a RED document for DCD addressing the main science areas that are necessary for Canadian regulatory decisions, i.e., human health and the environment. This document addressed uses of DCD that are also registered in Canada. Based on the USEPA RED and Canadian use pattern, the PMRA has determined that DCD is acceptable for continued registration provided that the mitigation measures specified in Section 4.0 are adopted. Additional data requirements are identified in Section 5.0.

It should be noted that for EPs that contain more than one active ingredient under re-evaluation, registration status might change as a result of the re-evaluation of the remaining affected active ingredients.

The PMRA will accept written comments on this proposal up to 45 days from the date of publication of this document to allow interested parties an opportunity to provide input into the proposed re-evaluation decision for these products.

4.0 Proposed regulatory actions

Based on the USEPA RED and in consideration of the Canadian use pattern, Canadian EP labels must be amended to include the following statements to further protect workers and the environment.

- In the **"Precautions"** section, for all EPs:

  "Wear a long-sleeved shirt, long pants, shoes and socks, chemical-resistant gloves and a NIOSH approved full face respirator during mixing, loading, clean up and repair activities."

  "The use of this product may cause the release of hydrogen cyanide and/or other cyanide compounds."

- In the **"Precautions"** section, for EPs used at higher maximum application rates for cooling towers (i.e., registration numbers 17907, 15529 and 18931):

  "Do not apply this product by open pouring to cooling water systems; a metering pump is required."

- In the **"Environmental Hazards"** section, for all EPs:

  "This product is toxic to fish and other aquatic organisms. It is not to be used in circumstances that would cause or allow it to enter lakes, streams, ponds, estuaries, oceans or other waters in contravention of federal or provincial regulatory requirements. The requirements of applicable laws should be determined before using the product."

The label amendments presented above do not include all label requirements for individual EPs, such as first aid statements, disposal statements, precautionary statements, and supplementary protective equipment. Additional information on labels of currently registered products should not be removed unless it contradicts the above label statements.

A submission to request label revisions is required within 90 days of finalization of the re-evaluation decision.

5.0 Additional data requirements

The registrant of technical grade DCD is required to submit the following data within 24 months of finalization of the re-evaluation decision.

- All data (as they relate to the Canadian use pattern) submitted to the USEPA in response to the data call-in prior to the reregistration in the United States and the USEPA Data Evaluation Reports (DERs);

- All data (as they relate to the Canadian use pattern) that were required by the USEPA as a condition of reregistration of DCD;

- A commitment and schedule to address Canadian requirements that are not addressed through submission of the data previously above. These are outlined in the PMRA's data code (DACO) tables for Use-site Category #17. The registrant is required to address the following sections of DACO tables:

    - for the TGAI: DACOs 2 through 9, inclusive
    - for the EP: DACOs 5, 8 and 9

The above data and additional data may be required sooner if expansion of current uses of DCD is requested.

The PMRA is currently undertaking initiatives to address the labelling deficiencies for certain kinds of antimicrobial products, especially with respect to the "Directions for Use" section of product labels. The PMRA will announce in the near future the nature of these initiatives and any requirements to be addressed by registrants.

6.0 Supporting documentation

PMRA documents, such as DIR2001-03, and DACO tables can be found on our website at www.hc-sc.gc.ca/pmra-arla. PMRA documents are also available through the Pest Management Information Service. Phone: 1 800 267-6315 within Canada or 1 (613) 736-3799 outside Canada (long distance charges apply); Fax: (613) 736-3798; E-mail: pmra_infoserv@hc-sc.gc.ca.

The federal TSMP is available through Environment Canada's website at www.ec.gc.ca/toxics.

The USEPA RED document [*Disodium cyanodithioimidocarbonate (DCDIC)*] is available on the Office of Pesticide Programs' website at www.epa.gov/pesticides/reregistration under Chemical Status.

Appendix I Products containing DCD registered in Canada as of 25 May 2004

Product name*	Registrant	Registration number	Guarantee %	Class
DCDIC (35%)	Buckman Labs of Canada Ltd.	18591	32	Technical
Nabe-m Liquid Microbiocide	Buckman Labs of Canada Ltd.	18931	14.7	Manufacturing concentrate
Busan 882 Liquid Microbiocide	Buckman Labs of Canada Ltd.	12009	12.7	Commercial
Busan 881 Liquid Microbiocide	Buckman Labs of Canada Ltd.	15529	14.7	Commercial
Microcide L-60 Algae Bacteria & Fungi Control Agent	Pace Chemicals Ltd.	17025	3.68	Commercial
Algex-SL Liquid Microbiocide	Vanchem Performance Chemicals	17633	4.9	Commercial
Finnan 1720 Liquid Microbiocide	Finnan Engineered Products Ltd.	17639	3.7	Commercial
WT 630 Broad-spectrum Liquid Microbiocide	M-Chem Industries Corporation	17907	4.9	Commercial
Aquarian C434 Liquid Microbiocide	Aquarian Chemicals Inc.	20251	7.35	Commercial
Ipacide LWT 516 Broad Spectrum Liquid Microbiocide	IPAC Chemicals Ltd.	20925	3.68	Commercial
DK-17.5 Liquid Microbiocide	Buckman Labs of Canada Ltd.	20935	7.35	Commercial
DK-11.7 Liquid Microbiocide	Buckman Labs of Canada Ltd.	20936	4.9	Commercial
DK-8.75 Liquid Microbiocide	Buckman Labs of Canada Ltd.	20937	3.68	Commercial
Control Chem 2602 Liquid Microbiocide	ControlChem Canada Ltd.	21689	3.68	Commercial
Formula 410 Algaecide Liquid Microbiocide	State Chemical Ltd.	21941	4.9	Commercial
Wetcide 4312 Liquid Microbiocide	Water Energy Technologies	22475	4.9	Commercial
DK-14 Liquid Microbiocide	Buckman Labs of Canada Ltd.	23830	5.88	Commercial
Microcide Lb-64	Pace Chemicals Ltd.	23990	5.9	Commercial
Bulab 6003 Liquid Microbiocide	Buckman Labs of Canada Ltd.	24038	5.88	Commercial
WC 8306 Liquid Microbiocide	Jacklyn Industries Inc.	24231	7.35	Commercial
WC 8307 Liquid Microbiocide	Jacklyn Industries Inc.	24232	3.68	Commercial
Triple C Chemical Biocide 599 Liquid Microbiocide	T. Donovan & Son (1997) Ltd.	25906	4.9	Commercial
Algae-X11.7 Liquid Microbiocide	Multi-Blend Ltd.	27008	4.9	Commercial
Glengarry MB-1000	Glengarry Chemicals Ltd.	27373	4.9	Commercial

* Products highlighted in the above table are no longer manufactured but existing stocks can be used until their expiry date. Algex-SL Liquid Microbiocide, Finnan 1720 Liquid Microbiocide and Algae-X11.7 Liquid Microbiocide expire on 24 November 2007, 31 December 2004 and 17 March 2008, respectively.