



Proposed Acceptability for Continuing Registration

PACR2006-01

Re-evaluation of Sodium Cyanide

The purpose of this document is to inform registrants, pesticide regulatory officials and the Canadian public that Health Canada's Pest Management Regulatory Agency (PMRA) has re-evaluated sodium cyanide. The PMRA is proposing that sodium cyanide is acceptable for continued registration. Additional mitigation measures to further protect workers, bystanders and the environment are identified in this document. Upon finalization of the re-evaluation decision, the PMRA will provide registrants of products containing sodium cyanide with specific direction on how to address these measures.

This Proposed Acceptability for Continuing Registration (PACR) document provides a rationale for the proposed regulatory decision for sodium cyanide. 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 Publications at the address below.

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1.0 Background

The PMRA is re-evaluating all pesticides, both active ingredients and formulated end-use products, 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.

Sodium cyanide 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 sodium cyanide 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 sodium cyanide. In its re-evaluation of sodium cyanide, the PMRA based its conclusions on this 1994 RED document, taking into account the Canadian use pattern and issues (e.g., the federal Toxic Substances Management Policy). A review of the chemistry of Canadian products was also conducted.

2.0 Re-evaluation of Sodium Cyanide

Active substance: Sodium Cyanide

Chemical names:

IUPAC: Sodium Cyanide

CAS: Hydrocyanic acid, sodium salt

Chemical class: Organic salt

CAS Number: 143-33-9

In Canada, sodium cyanide was first registered in 1984. According to the current end-use product label, this active ingredient is registered in Canada as a vertebrate pest control product used for coyote control in outdoor settings in the province of Alberta only. Its use is restricted to trained persons authorized under the *Alberta Agricultural Pests Act* and by designated Fish and Wildlife officers of the Government of Alberta. The restricted class product, Sodium Cyanide Predacide Coyote Control (Registration No. 25108; Alberta Agriculture, Food and Rural Development), is the only end-use product registered in Canada.

Based on the comparison of American and Canadian use patterns, the USEPA assessment described in the RED document for sodium cyanide 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 RED for sodium cyanide.

The federal Toxic Substances Management Policy and Regulatory Directive [DIR99-03](#) were taken into consideration during the review of sodium cyanide, and it was concluded that sodium cyanide is not a candidate for Track 1 classification. The technical product is not expected to contain impurities of toxicological concern as identified in Regulatory Directive [DIR98-04](#) or Toxic Substances Management Policy Track 1 substances as identified in Appendix II of DIR99-03.

3.0 Proposed Re-evaluation Decision

The USEPA published a RED document for sodium cyanide addressing the main science areas that are necessary for Canadian regulatory decisions, i.e., human health and the environment. This document addressed uses of sodium cyanide that are also registered in Canada. The PMRA is proposing that sodium cyanide is acceptable for continued registration with the implementation of additional mitigation measures specified in Section 4.0 of this PACR. No additional data are required.

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. Registrants of products containing sodium cyanide should not apply for label amendments during this comment period; they will be informed by letter of the specific instructions for addressing label changes once the re-evaluation decision has been finalized.

4.0 Proposed Regulatory Actions

Canadian end-use product labels should be amended to include the following statements to further protect handlers, bystanders and the environment.

- In order to further minimize risk to handlers and bystanders, the following label statements are required in the **PRECAUTIONS** section:

“When handling, setting or inspecting cyanide cartridges, always carry an antidote kit containing at least 6 pearls of amyl nitrite in case sodium cyanide is swallowed or inhaled.”

“Do not use in areas where exposure to people and pets is probable.”

“Keep children, unauthorized personnel as well as dogs and other domestic animals away from set cyanide cartridges.”

- The following label statement is required in the **TOXICOLOGICAL INFORMATION** section:

“Patient should breathe the contents of an amyl nitrate pearl 15–30 seconds each minute if necessary until 5 pearls have been used.”

- The Canadian end-use product label must include the following statement in a section entitled “**ENVIRONMENTAL HAZARD**”:

“This pesticide is **TOXIC TO WILDLIFE**. Keep out of lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposing of wastes.”

“Use of this product is prohibited in areas where it might jeopardize the existence of endangered, threatened, vulnerable, special concern or indeterminate status species. Contact the local office of the Canadian Wildlife Service to determine locations of habitats occupied by these species occurring in or near the intended area of use.”

“To allow the natural movements of endangered, threatened, vulnerable or indeterminate status species that may venture outside provincial or national parks or conservation areas, a buffer zone of 400 meters must be strictly obeyed.”

- Reword the following statement under the section of the label entitled “RESTRICTED USES” from:

“Place up to three cyanide cartridges on land where coyote control is required.”

To the following:

“Place up to three cyanide cartridges on land where a site is identified for coyote control.”

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

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

5.0 Supporting Documentation

PMRA documents, such as DIR2001-03, and DACO tables can be found on our website at www.pmra-arla.gc.ca. 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) 736-3758; 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 (*Sodium Cyanide*) is available on the Office of Pesticide Programs’ website at www.epa.gov/pesticides/reregistration under Chemical Status.