



**Australian Pesticides &  
Veterinary Medicines Authority**

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**The Reconsideration of Registrations of Arsenic Timber Treatment Products (CCA and arsenic trioxide) and Their Associated Labels**

**REPORT OF REVIEW FINDINGS AND REGULATORY OUTCOMES  
TECHNICAL REPORT**

Review Series 3

March 2005

**Australian Pesticides &  
Veterinary Medicines Authority**

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Australia**

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This review report for the arsenic timber treatment products, copper chrome arsenate (CCA) and arsenic trioxide, is published by the Australian Pesticides and Veterinary Medicines Authority. For further information about this review or the Pesticides Review Program, contact:

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## FOREWORD

The APVMA is an independent statutory authority with responsibility for the regulation of agricultural and veterinary chemicals in Australia. Its statutory powers are provided in the *Agricultural and Veterinary Chemicals Code Act, 1994* (Agvet Codes).

The APVMA can reconsider the approval of active constituents, the registration of chemical products or the approval of labels for containers of chemical products at any time. This is outlined in Part 2, Division 4 of the Agvet Codes.

The basis for the reconsideration is whether the APVMA is satisfied that continued use of arsenic timber treatments, copper chrome arsenate (CCA) and arsenic trioxide in accordance with the instructions for their use:

- would not be an undue hazard to the safety of people exposed to it during its handling; and
- would not be likely to have an effect that is harmful to human beings; and
- would not be likely have an unintended effect that is harmful to animals, plants or things or to the environment.

The requirements for continued approval of a label for containers for a chemical product are that the label contains adequate instructions. Such instructions include:

- the circumstances in which the product should be used;
- how the product should be used;
- times when the product should be used;
- frequency of the use of the product;
- the withholding period after the use of the product;
- disposal of the product and its container;
- safe handling of the product.

A reconsideration may be initiated when new research or evidence has raised concerns about the use or safety of a particular chemical, a product or its label.

The process for reconsideration includes a call for information from a variety of sources, a review of that information and, following public consultation, a decision about the future use of the chemical or product.

In undertaking reviews, the APVMA works in close cooperation with advisory agencies including the Office of Chemical Safety (OCS - public health and OCS-OHS) within the Department of Health and Ageing, the Department of Environment and Heritage (DEH), and State Departments of Agriculture as well as other expert advisors, as appropriate.

The APVMA has a policy of encouraging openness and transparency in its activities and community involvement in decision-making. The publication of review reports is a part of that process.

The APVMA also makes these reports available to the regulatory agencies of other countries as part of bilateral agreements. Under this program it is proposed that countries receiving these reports will not utilise them for registration purposes unless they are also provided with the raw data from the relevant applicant.

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The review's findings and recommendations are based on information collected from a variety of sources. The information and technical data required by the APVMA to review the safety of both new and existing chemical products must be derived according to accepted scientific principles, as must the methods of assessment undertaken.

This document entitled '*The Reconsideration of Registrations of Arsenic Timber Treatment Products (CCA and arsenic trioxide) and their associated labels : Technical Report*' is the second of the two documents. The technical assessment of the data and information available to the review are detailed in this document.

The technical assessments, review findings and proposed regulatory actions are detailed in two separate documents. The review findings and proposed regulatory actions are summarised in the first document entitled '*The Reconsideration of Registrations of Arsenic Timber Treatment Products (CCA and arsenic trioxide) and their associated labels : Review Summary*' (available at [http://www.apvma.gov.au/chemrev/arsenic\\_draft\\_review.pdf](http://www.apvma.gov.au/chemrev/arsenic_draft_review.pdf)).

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## ACRONYMS AND ABBREVIATIONS

ACVM	New Zealand Agricultural Compounds & Veterinary Medicines Group
ADI	Acceptable Daily Intake
ADWG	Australian Drinking Water Guidelines
ai	active ingredient
ARfD	Acute Reference Dose
APVMA	Australian Pesticides and Veterinary Medicines Authority
ATDS	Australia Total Diet Survey
CCA	Copper Chrome Arsenate
Codex	FAO/WHO Codex Alimentarius Commission
DEH	Department of Environment and Heritage (prev. Environment Australia)
DMA	dimethylarsinic acid
ERMA	Environmental Risk Management Authority (New Zealand)
FSANZ	Food Standards Australia New Zealand
IARC	International Agency for Research on Cancer
IPCS	International Programme on Chemical Safety
JMPR	Joint FAO/WHO Meeting on Pesticide Residues
JECFA	Joint Expert Committee on Food Additives
LD <sub>50</sub>	The dose at which 50% of a test population dies
LD <sub>50</sub>	The dose at which 50% of a test population dies
LOD	Limit of Detection
LOAEL	Lowest Observed Adverse Effect Level
LOEL	Lowest Observed Effect Level
LOQ	Limit of analytical Quantitation, also referred to as limit of determination
LOR	Limit of Reporting
MMA	monomethylarsinic acid
MOE	Margin of Exposure
NEDI	National Estimated Dietary Intake
NEPC	National Environmental Protection Council
NESTI	National Estimated Short-Term Intake
NHMRC	National Health and Medical Research Council
NOEL	No Observed Effect Level
NOHSC	National Occupational Health and Safety Commission (now OCS – OH&S)
OECD	Organisation for Economic Cooperation and Development
OHS	Occupational Health and Safety
OCS	Office of Chemical Safety (now OCS – Public Health)
PACSC	Pesticide and Agricultural Chemical Standing Committee
PHED	Pesticide Handlers Exposure Database
PMRA	Pest Management Regulatory Agency (Canada)
POEM	Predictive Operator Exposure Model
PPE	Personal Protective Equipment
RTECS	Registry of Toxic Effects of Chemical Substances
TC	Transfer Coefficient
TDI	Tolerable Daily Intake
USEPA	United States Environmental Protection Agency
US CPSC	United States Consumer Product Safety Commission
WHO	World Health Organisation

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Part one: Toxicology assessment

Part two: Environmental Assessment