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Re-evaluation Decision

RVD2018-33

Metam Sodium and Metam Potassium and their Associated End-use Products

Final Decision

(publié aussi en français)

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Re-evaluation Decision

Under the authority of the *Pest Control Products Act*, all registered pesticides must be regularly re-evaluated by Health Canada's Pest Management Regulatory Agency (PMRA) to ensure that they continue to meet current health and environmental safety standards and continue to have value. The re-evaluation considers internationally accepted risk assessment methods as well as current risk management approaches and policies.

Metam sodium and metam potassium are non-selective pre-plant soil fumigants used to control pathogens including insects, nematodes, bacteria, fungi and weeds in soil. These active ingredients are also used as remedial wood preservatives to treat structural timber (such as poles). In addition, metam sodium is registered for use in sewer lines to control tree roots, and metam potassium is registered for use in water cooling systems and petroleum secondary recovery waters to control microbial activity. Currently registered products containing metam sodium and metam potassium are listed in Appendix I.

This document presents the final regulatory decision¹ for the re-evaluation of metam sodium and metam potassium. All pest control products containing metam sodium and metam potassium that are registered in Canada are subject to this re-evaluation decision. Prior to finalizing this decision, Health Canada published the Proposed Re-evaluation Decision PRVD2017-22, *Metam Sodium and Metam Potassium and Their Associated End-use Products*,² for 90-day consultation.

No comments were received during the consultation period. Therefore, this decision is consistent with the proposed re-evaluation decision stated in PRVD2017-22.

A reference list of all data used as the basis for the re-evaluation decision is included in PRVD2017-22.

Regulatory Decision for Metam Sodium and Metam Potassium

Health Canada has completed the re-evaluation for metam sodium and metam potassium. Under the authority of the *Pest Control Products Act*, Health Canada has determined that continued registration of products containing metam sodium and metam potassium is acceptable. Following a scientific review of the available information, Health Canada has determined that the health and environmental risks and the value of metam sodium and metam potassium continue to be acceptable provided that the required mitigation measures are implemented. Label amendments, as summarized below and listed in Appendix II, are required. No additional data are required at this time.

¹ "Decision statement" as required by subsection 28(5) of the *Pest Control Products Act*.

² "Consultation statement" as required by subsection 28(2) of the *Pest Control Products Act*.

Risk Mitigation Measures

Registered pesticide product labels include specific directions for use. Directions must be followed by law and include risk mitigation measures to protect human health and the environment. The following label amendments are included as part of the re-evaluation:

Human Health

- Hazard label statements for all product labels
- End-use products registered for soil fumigation:
 - Updates to label statements related to the Nature of Restriction to meet the current labelling standards
- End-use product registered for sewer root control:
 - Designation of the end-use product for sewer root control as “Restricted class”
 - Clarifications to personal protective equipment for support personnel
 - Respiratory Protection and Stop Work Triggers
- End-use products registered for remedial wood preservation and for petroleum secondary recovery water treatment:
 - Additional personal protective equipment for handlers

Environment

- Updated certain environmental statements to meet the current labelling standard

Next Steps

To comply with this decision, the required mitigation measures must be implemented on all product labels sold by registrants no later than 24 months after the publication date of this decision document. Appendix I lists the products containing metam sodium and metam potassium that are registered under the authority of the *Pest Control Products Act*.

Other Information

Any person may file a notice of objection³ regarding this decision on metam sodium and metam potassium within 60 days from the date of publication of this Re-evaluation Decision. For more information regarding the basis for objecting (which must be based on scientific grounds), please refer to the Pesticides section of Canada.ca (Request a Reconsideration of Decision) or contact the PMRA's Pest Management Information Service.

³ As per subsection 35(1) of the *Pest Control Products Act*.

Appendix I Registered Metam Sodium and Metam Potassium Products in Canada

Table 1 Registered Metam Sodium Products as of 12 July 2018

Registration Number	Marketing class	Registrant	Products Name	Formulation Type	Guarantee
18627	T	Buckman Laboratories of Canada Ltd.	SNMDC (33%) Liquid Microbicide Concentrate	Solution	33%
19399	T	AMVAC Chemical Corporation	Vapam Technical	Solution	44%
24327	T	Buckman Laboratories of Canada Ltd.	SNMDC Concentrate Liquid Microbicide	Solution	42%
28170	T	Taminco US LLC	Metam Sodium Technical Formula	Solution	42%
28323	M	Taminco US LLC	Metam Sodium MUP Formula	Solution	41.98%
6453	R	AMVAC Chemical Corporation	Vapam Liquid Solution Soil Fumigant	Solution	380 g/L
19421	R	Buckman Laboratories of Canada Ltd.	Busan 1020	Solution	33%
25103	R	Buckman Laboratories of Canada Ltd.	Busan 1236	Solution	42%
28247	R	Taminco US LLC	Metam Sodium Agricultural	Emulsifiable concentrate or emulsion	380 g/L
29128	R	AMVAC Chemical Corporation	Vapam HL	Liquid	42%
29142	R	Taminco US LLC	Engage Agro Enfuse M 510	Solution	41.98%
13139	C	AMVAC Chemical Corporation	Pole-Fume	Solution	380 g/L
17110	C	North Star Structural Contractors Ltd.	Woodfume	Liquid	380 g/L
25000	C	Buckman Laboratories of Canada Ltd.	Busan 1020W	Solution	33%

Registration Number	Marketing class	Registrant	Products Name	Formulation Type	Guarantee
29770	C	AMVAC Chemical Corporation	Pole Fume HL	Liquid	42%
30015	C	Univar Canada Ltd.	Guardsman Post & Pole Fumigant 42%	Liquid	42%
30225	C	Douglas Products And Packaging Company LLC	Sanafoam B (A Component of the Sanafoam® Vaporooter® II Tank Mix Concept)	Solution	30%

T- technical grade product; M – manufacturing concentrate; R – restricted class products; C – commercial class product

Table 2 Registered Metam Potassium Products as of 12 July 2018

Registration Number	Marketing Class	Registrant Name	Product Name	Formulation Type	Guarantee
18592	T	Buckman Laboratories of Canada Ltd.	PNMDC (54%) Liquid Microbicide Concentrate	Solution	54%
30180	T	Taminco US LLC	Taminco Metam K Technical	Liquid	54.1%
30236	M	Taminco US LLC	Taminco Metam K MUP	Solution	54.0%
25124	R	Buckman Laboratories of Canada Ltd.	Busan 1180	Solution	54%
30237	R	Taminco US LLC	Enfuse K 690	Solution	54%
20925	C	IPAC Chemicals Ltd.	Ipacide LWT 516	Solution	KMC-5.07% DCD-3.68%
20935	C	Buckman Laboratories of Canada Ltd.	DK-17.5 Liquid Microbicide	Solution	KMC-10.15% DCD-7.35%
20936	C	Buckman Laboratories of Canada Ltd.	DK-11.7 Liquid Microbicide	Solution	KMC-6.8% DCD-4.9%
20937	C	Buckman Laboratories of Canada Ltd.	DK-8.75 Liquid Microbicide	Solution	KMC-5.07% DCD-3.68%
21689	C	ControlChem Canada Ltd.	ControlChem 2602 - Liquid Microbiocide	Solution	KMC-5.07% DCD-3.68%

23355	C	Enercon Water Treatment Ltd.	EC-630 Liquid Microbicide	Solution	KMC-6.8% DCD-4.9%
23830	C	Buckman Laboratories of Canada Ltd.	DK-14 Liquid Microbicide	Solution	KMC-8.12% DCD-5.88%
24038	C	Buckman Laboratories of Canada Ltd.	BULAB 6003 Liquid Microbicide	Solution	KMC-8.12% DCD-5.88%

T- technical grade product; M – manufacturing concentrate; R – restricted class products; C – commercial class product ; KMC – metam potassium; DCB - dichlobenil

Appendix II Label Amendments for Products Containing Metam Sodium or Metam Potassium

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

The following label statements are required:

- I) For technical grade, manufacturing concentrates and end-use products containing metam sodium or metam potassium, the following key signal words must be included on the primary panel of the label:

DANGER POISON

DANGER – CORROSIVE TO EYES

DANGER SKIN IRRITANT

POTENTIAL SKIN SENSITIZER

- II) In the **NATURE OF RESTRICTION** section of the primary display panel of the end-use products registered for soil fumigation, the following statement must be removed:

*This product is only to be used by individuals holding an appropriate pesticide applicator certificate or license recognized by the provincial/territorial pesticide regulatory agency where the pesticide application is to occur. This restriction applies to all fumigant handlers, as defined in the **HANDLER RESTRICTIONS** section of this label.*

and replaced with:

*This product is only to be sold to and used by individuals holding an appropriate pesticide applicator certificate or licence recognized by the provincial/territorial pesticide regulatory agency where the pesticide application is to occur. This restriction applies to all fumigant handlers, as defined in the **DIRECTIONS FOR USE - HANDLER RESTRICTIONS** section of this label.*

- III) On the primary display panel of the end-use product registered for sewer root control, the following statement must be removed:

For retail sale to and use only by licensed applicators or persons under their direct supervision and only for those uses covered by the licensed applicator's certification.

and replaced with:

RESTRICTED PRODUCT

The following statements must be included in a section entitled **NATURE OF RESTRICTION:**

This product is only to be sold to and used by individuals holding an appropriate pesticide applicator certificate or licence recognized by the provincial/territorial pesticide regulatory agency where the pesticide application is to occur.

IV) The following statement must be included in a section entitled **PRECAUTIONS:**

1. For all end-use products:

Fatal or Poisonous if swallowed or absorbed through the skin. DO NOT get on skin or on clothing. Harmful if inhaled. Avoid inhaling/breathing vapour or sprays. CORROSIVE to the eye and to skin. DO NOT get in eyes or on skin. Potential skin sensitizer.

2. For end-use products registered for wood preservation or preservation of petroleum secondary recovery water:

Wear coveralls over a long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves, and protective eyewear during mixing, loading, application and all other handling activities.

I) For the end-use product registered for sewer root control

1. The following statements under **PRECAUTIONS** must be removed:

Personal Protective Equipment:

Wear coveralls over a long-sleeve shirt and long pants, chemical-resistant gloves, chemical-resistant footwear plus socks, chemical-resistant apron (if transferring or loading the product or cleaning up spills or equipment), and a respirator during mixing, loading, transfer, application or any other handling activities. The respirator must be a NIOSH-approved half-face, full-face, or helmet/hood style respirator with either, an organic-vapour-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G). In addition, wear face-sealing goggles if using a half-face respirator.

All support personnel who remain outside the treatment zone and who are not exposed to either liquid spray or vapours must wear a long-sleeved shirt, long pants, and shoes plus socks. In addition, when they may be exposed to liquid spray or vapours, they must have immediately available, and must wear in an emergency, the handler PPE listed above in this section.

and replaced with:

Personal Protective Equipment:

Wear coveralls over a long-sleeve shirt and long pants, chemical-resistant gloves, chemical-resistant footwear plus socks, chemical-resistant apron (if transferring or loading the product or cleaning up spills or equipment), and a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH-approved canister approved for pesticides during mixing, loading, transfer, application or any other handling activities. In addition, wear face-sealing goggles if using a half-face respirator.

Support personnel must wear a long-sleeved shirt, long pants and shoes plus socks. In addition, they must have the handler PPE listed above in this section immediately available, and must wear it, when there is a possibility of exposure to either liquid spray or vapours.

2. The following statements must also be included under **PRECAUTIONS** (after the **Engineering Controls for Closed Loading and/or Transfer Systems** Section):

Respiratory Protection and Stop Work Triggers:

*All handlers must wear a respirator during all mixing, loading, transfer, application or any other handling activities (see **Personal Protective Equipment** Section). Support personnel are not required to wear a respirator, but must have a respirator immediately available in the event of an emergency. The procedures outlined in Table X must be followed to determine if operations must cease.*

Table X *Respiratory Protection and Stop Work Triggers*

<p><i>If at any time any person experiences sensory irritation when not wearing a respirator</i></p>	<p><i>Then either:</i></p> <ul style="list-style-type: none"> • <i>Operations must cease and all personnel present must leave the site.</i> <p><i>OR</i></p> <ul style="list-style-type: none"> • <i>An air-purifying respirator must be worn by all personnel and air monitoring samples must be collected for MITC every 2 hours at the location where irritation was first experienced.</i>
<p><i>If at any time any person experience sensory irritation when wearing a respirator</i></p>	<p><i>Operations must cease and all personnel must leave the site.</i></p>

<i>If at any time a MITC air sample is greater than or equal to 6 ppm</i>	<i>Operations must cease and all personnel must leave the site.</i>
<i>If operations must cease, work can only resume provided:</i>	<ul style="list-style-type: none"> • <i>All personnel wear a respirator,</i> • <i>Two consecutive breathing zone samples for MITC taken at least 15 minutes apart are less than 6 ppm at the location where irritation was first experienced,</i> • <i>Handlers do not experience sensory irritation while wearing a respirator,</i> • <i>Respirator cartridges/canisters have been changed, and</i> • <i>Air monitoring samples must be collected at least every 2 hours in the breathing zone of a handler.</i>

VI) The following statements must be included in a section entitled **DIRECTIONS FOR USE**.

1. For end-use products registered for wood preservation or preservation of industrial process fluids:

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

2. For end-use products registered for sewer root controls and industrial process fluids:

DO NOT discharge effluent containing this product or the biocide produced into lakes, streams, ponds, estuaries, oceans or other waters unless the effluent has been detoxified by suitable means.

3. For end-use products registered for soil fumigation in greenhouses:

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

VII) The following statements must be included in a section entitled **STORAGE** for all end-use products:

To prevent contamination store this product away from food or feed.