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Regulatory Proposal

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Structural Pest Control Products: Label Updates

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1.0 Background

Structural Pest Control Products

For the purposes of this document, structural pest control products (SPCPs) are defined as products used to kill/control/repel invertebrate pests that impact a structure or its inhabitants and are applied within, outdoors on the exterior surfaces of, and within a one-metre perimeter of a structure. Indoor applications may include the contents of the structure but only when specified on the label. This definition of SPCPs excludes mothballs, termiticides, fumigants, outdoor fogging and outdoor misting systems.

SPCPs can be applied onto surfaces or into the air of structures as either a surface or space application.

1. Surface application – A directed application to a surface (floor, wall, foundation, ceiling, mattress, furniture, etc.). This includes but is not limited to broadcast, perimeter, spot, crack and crevice, and void applications.
2. Space application – An application of a pesticide as a suspension of fine droplets in air within an indoor space. This definition does not include fumigants, outdoor fogging and outdoor misting systems.

Structures to which SPCPs are applied include residential, farm and office buildings, air, land and sea transport vehicles, and commercial, farm (including greenhouses, mushroom houses, etc.) and residential buildings where food commodities are stored, grown or processed. Excluded are underwater structures.

A structure can be a building or non-building to which a pesticide may be applied. Buildings are considered as any structure used or intended for supporting or sheltering any use or occupancy (NRC, 2015). Types of buildings include but are not limited to homes, schools, offices, animal housing, greenhouses and mushroom houses, factories, storage facilities and food processing facilities. Non-buildings are those which are not designed for continuous human or domestic animal occupancy. Types of non-buildings include but are not limited to parking structures, roads/driveways, perimeter barriers such as fences or retaining walls, utilities (sewers, drains, telephone poles, etc.), patios and decks.

A residential structure is one where the general public, including children, could be exposed during or after application. Residential structures include, but are not limited to, homes, schools, restaurants, hotels/motels, public buildings or any other areas where the general public including children may potentially be exposed. Non-residential areas include, but are not limited to, industrial/commercial indoor sites (laboratories, warehouses, food granaries, etc.); modes of transport in areas where passengers are not present (cargo areas, railcars, etc.); and animal housing (livestock housing, pet kennels, etc.).

Consistency in Label Statements for SPCPs

During the scientific reviews of SPCPs, Health Canada's Pest Management Regulatory Agency (PMRA) can make changes to the registrant-provided label statements in order to better reflect the underlying risk assessment in addition to providing more clarity on statements that communicate risk mitigation measures, the supported use pattern, best practice statements, etc.

To ensure consistency in this process, the PMRA undertook a focused initiative to standardize the definitions of application types and human health precautionary statements for SPCPs that are used within, outdoors on the exterior surfaces of, and within a one-metre perimeter of a structure.

The *Standard for Pesticide Education, Training and Certification in Canada*, specifically the 2005 Structural Module of the Basic Knowledge Requirements for Pesticide Education, and United States Environmental Protection Agency's 2012 Residential Standard Operating Procedures were relied upon as key documents for standardizing application type definitions. The human health precautionary statements were proposed based on statements already present on existing labels or as identified by key stakeholders.

Consultation and Engagement

Key stakeholders within the SPCP industry were engaged with a specific consultation request to provide input on the proposed label statements prior to the publication of this regulatory proposal. Specifically, the Canadian Pest Management Association, CropLife Canada, Canadian Consumer Specialty Products Association and the Federal/Provincial/Territorial Committee on Pesticides and Pest Management were approached to provide feedback and recommendations on the proposed application type definitions and human health precautionary statements.

As a result of the targeted consultation process, the number of definitions was expanded, definition language was simplified and streamlined, and implementation of the label amendment process was clarified. The input from these consultations was then used to update the tables provided in appendices I to III.

2.0 Purpose

The purpose of this regulatory proposal is to consult with the public on proposed standard definitions of application types and human health precautionary label statements for SPCPs. The revised definitions will provide a uniform language through which all stakeholders in the structural pest control industry can communicate. Also, the human health precautionary statements will ensure a consistent standard level of risk mitigation measures to minimize exposure to those applying the SPCPs and those entering treated areas.

The proposed definitions and precautionary statements apply to both commercial and domestic marketing class end-use products.

3.0 SPCP Application Types

The definitions of the most common application types are listed in Appendix I.

These definitions are to be applied on the labels of all formulation types but may have to be altered to fit non-liquid formulations (dusts, aerosols, etc.), as necessary.

4.0 Human Health Precautionary Statements

The standard human health precautionary statements presented in Appendix II are for the most common uses of SPCPs and for those uses that represent the greatest risk to the applicator and populations exposed to residues after application.

These statements are intended for registrants of SPCPs to specify on the labels of the end-use product, when appropriate, based on the use pattern. Over time, these precautionary statements can be updated as new information or data are received and reviewed by the PMRA.

5.0 Implementation

To communicate these changes with both commercial and domestic end-users, the labels of commercial and domestic class end-use products will be amended by integrating the definitions and precautionary statements onto product labels, when appropriate.

The training module for commercial pest control operators or pest management professionals will also be updated. The definitions proposed in this Regulatory Proposal will be used to replace and augment those currently within the Structural Module for Basic Knowledge Requirements under Application Techniques. Changes will be made to the module when it is updated by the Working Group on Pesticide Education, Training and Certification.

Registered SPCPs Not Under Re-evaluation

Changes and updates by registrants of SPCPs to the labels not under re-evaluation can occur on a per-submission basis when other amendments to the label are requested.

Registered SPCPs Under Re-evaluation

As a result of a re-evaluation, registrants can be required to update their labels. Updates to a label will take into consideration the information presented in this Regulatory Proposal.

New SPCPs

The proposed labels of SPCPs submitted to the Agency for initial registration must include the definitions and precautionary statements once finalized in a Science Policy Note.

If any changes to the definitions or precautionary statements are made for reasons specific to the use pattern of the end-use product, formulation or active, a rationale must be provided. For example, if the applicant requests to increase indoor perimeter treatment of a building (for example, livestock or animal housing structure) to 1.0 m from 0.3 m from the wall, a rationale must be provided under DACO 10 which emphasizes the need for a larger treatment area based on the activity of the pest. Under DACO 5, the applicant will need to justify that the additional surface area of treatment will not result in an increase in exposure.

6.0 Conclusion

The implementation of the definitions of application types and human health precautionary statements by the PMRA science evaluators, stakeholders such as pest control operators / pest management professionals , provincial and territorial pesticide licensing/certification and education bodies, and applicants/registrants will be in effect after the public consultation with the publication of a Science Policy Note.

The collaborative efforts put forth in the development of these statements will result in greater consistency in the use of these statements and will allow in a better understanding of how products are to be used.

7.0 Next Steps

The PMRA invites the public to submit written comments on this proposal up to 45 days from publication. Please forward all comments to PMRA Publications. Contact information can be found on the cover page of this document.

The PMRA will consider all comments received before issuing a Science Policy Note. Please note that submitted comments should be limited to those relating to the definitions and precautionary statements as discussed in this proposal. Please provide your comments and include the following information: your full name and organization, telephone number, and complete mailing address or email address.

Acronyms

DACO	Data Code
PMRA	Pest Management Regulatory Agency
RVD	Re-evaluation Decision Document
SPCP	Structural Pest Control Product
VMD	Volume Median Diameter

Appendix I Proposed Application Type Definitions for Inclusion on Proposed/Registered Labels

Application Type	Definition
Outdoor Structural Broadcast	Outdoor broadcast application is to large outdoor structural surfaces (in other words, roofs, walls, doors, windows and foundations ¹).
Outdoor Perimeter ^{2 3}	Outdoor perimeter application is 1 m or less out from the building's foundation and to a vertical height of 1 m or less starting at where the foundation meets the ground.
Indoor Broadcast	Indoor broadcast application is to broad expanses of indoor structural surfaces. This includes walls, floors, ceilings and indoor foundation walls/crawlspaces.
Indoor Perimeter (coarse droplet or particle size)	Indoor perimeter application is less than 0.3 m wide along the edges of a room to baseboards, wall-floor and ceiling-wall joints, and around doorways or windows.
Indoor Perimeter (pin stream). For commercial marketing class end-use products only.	Indoor perimeter application is less than 0.1 m wide along the edges of a room using a pin stream nozzle to baseboards, wall-floor and ceiling-wall joints, and around doorways or windows.
Spot	Spot application is localized to a surface area not more than 0.2 m ² . Spots are not to be adjoining. The combined area of spots is not to exceed 10% of the total surface area of a room. Exception for gel or paste baits not applied in bait stations: A spot application is an open, localized placement of bait in areas inaccessible to children and pets [and livestock]. ⁴ Locations of treatment may include under sinks and under heavy appliances (for example, fridge or stove).
Crack and Crevice	Crack and crevice is an application directly into narrow openings on the surface of the structure. It does not include the treatment of exposed surfaces. Narrow openings typically occur at expansion joints, utility entry points and along baseboards and mouldings.
Void	Void application applies to inaccessible, enclosed empty spaces of a structure. For example, hollow walls and suspended ceilings.
Furniture Treatment, including but not	Broadcast – Broadcast furniture application covers large areas or the entire surface of listed items.

¹ Other locations can be considered on a case-by-case basis (for example, porches, patios) if that use-site category is requested.

² The limitation of 1 m is based on the USEPA Residential standard operating procedure, Section 3 Lawns/Turf as the maximum distance from a house for which a postapplication human health risk assessment for lawns/turf does not have to be conducted.

³ An outdoor perimeter application of a structural pest control product could result in exposure to pollinators; thus, additional environmental toxicity data under DACO 9.2.4 (Bees/Insect Pollinators) may be required.

⁴ Livestock may need to be included if applicable to the use pattern.

Application Type	Definition
limited to upholstered furniture, hard surface furniture, mattresses, box spring, pet bedding, bed frames, dressers, curtains, picture frames, wall coverings, hollow furniture legs, etc.	<p>Spot – Spot furniture application is up to 10% of the surface of the treated item.</p> <p>Crack and crevice – Crack and crevice furniture treatments are applications to junction points on items.</p> <p>Tufts and seams (mattresses and upholstered furniture only) – Tufts and seam treatment is to the junction of two or more pieces of fabric and any decorative trim (for example, buttons).</p> <p>Void – Void furniture treatment targets inaccessible empty spaces of items. For example, inside the dust cover on the underside of furniture or hollow table legs.</p>
Space ⁵	Space application is a suspension of fine droplets (0.1–100 micrometres) in the air within an indoor space.

⁵ This definition does not include fumigants, outdoor fogging and outdoor misting systems. The droplet size is defined by the American Society of Agricultural and Biological Engineers (ASABE, 2009; Appendix III).

Appendix II Proposed Baseline Human Health Precautionary Statements for Inclusion on Proposed/Registered Labels

Surface Application	Space Application
Precautionary Statement	Precautionary Statement
Commercial Marketing Class Products	Commercial Marketing Class Products
<ol style="list-style-type: none"> 1. Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during [mixing, loading,] application, clean-up and repair.⁶ 2. DO NOT apply to overhead areas or in confined spaces⁷ without appropriate respiratory and eye protection.⁸ 3. Ventilate treated areas after application either by opening windows and doors or through use of air exchange/ventilation systems confirmed to be operational. Use fans where required to aid in the circulation of air. 4. For broadcast, indoor perimeter and spot spray (liquid formulation) applications, add “Use a coarse,⁹ low pressure spray not exceeding 345 kPa (50 psi).” 5. DO NOT apply when a food/feed processing facility is in operation. Cover or remove all food/feed. 	<ol style="list-style-type: none"> 1. Wear a long-sleeved shirt, long pants, chemical resistant gloves socks and shoes during [mixing, loading,] application, clean-up and repair.⁶ 2. When applying to overhead areas or in confined spaces,⁷ wear appropriate respiratory and eye protection. 3. Ventilate treated areas after application either by opening windows and doors or through use of air exchange/ventilation systems confirmed to be operational. Use fans where required to aid in the circulation of air.
Domestic Marketing Class Products	Domestic Marketing Class Products
<ol style="list-style-type: none"> 1. DO NOT apply to overhead areas or in confined spaces (for example, attics, crawlspaces, small storage rooms, closets). 2. Ventilate treated areas after application by opening windows and doors. Use fans where required to aid in the circulation of air. 	<ol style="list-style-type: none"> 1. Ventilate treated areas after application by opening windows and doors. Use fans where required to aid in the circulation of air.
Commercial and Domestic Marketing Class Products	Commercial and Domestic Marketing Class Products

⁶ Mixing and loading is not applicable for products sold as ready-to-use and so this can be removed.

⁷ Confined space as described by the Canadian Centre for Occupational Health and Safety (CCOHS, 2018).

⁸ Not necessary to include if applying gel or paste baits.

⁹ Coarse droplet size as defined by the American Society of Agricultural and Biological Engineers (ASABE, 2009).

<ol style="list-style-type: none"> DO NOT apply when people or pets [or livestock] are present. Liquid/Aerosol end-use products¹⁰ - DO NOT allow people or pets [or livestock] to enter treated areas until sprays have dried. Dust end-use products - DO NOT allow people or pets [or livestock] to enter treated areas until dusts have settled. Liquid/aerosol end-use products - DO NOT allow spray to drip or allow drift onto non-target surfaces; any spray residue must be removed by the applicator.¹¹ Dust end-use products - DO NOT allow dust to deposit onto non-target surfaces; any dust must be removed by the applicator.¹¹ DO NOT apply to surfaces that may come into contact with food/feed.¹² Cover or remove all food/feed. Cover all food/feed processing surfaces, equipment and utensils or thoroughly wash following treatment. DO NOT apply as a space spray¹³ or [broadcast or indoor perimeter or spot] treatment.¹⁴ <p>Generic statements for end-use products approved for use on mattresses and furniture:</p> <ol style="list-style-type: none"> DO NOT use on items that can be laundered (for example, pillows, bedding, toys, clothing). Before treatment, remove all bedding and clothing, thoroughly vacuum, and air out mattresses and furniture. Treated mattress and furniture must be dry before replacing with laundered bedding and clothing. When approved for tuft and/or seam application only, add, "DO NOT apply to the entire mattress or piece of furniture. Apply to tufts [and/or] seams only." <p>Statement for end-use products which are approved to control a pest that can be found on mattresses and furniture (for example, bed bugs, fleas) but the latter are not specifically stated on the label:</p> <ol style="list-style-type: none"> DO NOT apply to furniture, mattresses, linens, pet bedding, toys or clothing. <p>Generic statements for void application:</p> <ol style="list-style-type: none"> Care should be taken to avoid the pesticide exiting the void. Any residue deposits on non-target surfaces must be removed by the applicator. 	<ol style="list-style-type: none"> DO NOT apply when people or pets are present. DO NOT remain in treated areas after application. DO NOT allow people or pets to enter treated areas until sprays have settled [or XX¹⁵ minutes after application]. Cover or remove all food/feed. Cover all food/feed processing surfaces, equipment and utensils or thoroughly wash following treatment.
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¹⁰ Not applicable to metered mists which are permanently installed.

¹¹ For indoor uses only.

¹² For end-use products which are not allowed for use in food/feed processing facilities.

¹³ This restriction must be added when only surface application types are supported on the label.

¹⁴ The surface application types not requested or supported by the PMRA must be listed here.

¹⁵ The duration prior to entry is based on the settling time of an end-use product as per the most recent USEPA Residential Standard Operating Procedure.

Appendix III Proposed Droplet Size Categories

The droplet classifications used within this document are defined by the American Society of Agricultural and Biological Engineers (ASABE, 2009). The volume median diameter (VMD) is the value where 50% of the total volume or mass of liquid spray is made up of droplets larger than and 50% smaller than this value.

ASABE ¹⁶ Classification	VMD Range (micrometre)	Sub Category ¹⁷	VMD Range (micrometre)
Extremely Fine	< 60	Vapour	< 0.001
		Fume/Smokes	0.001 – 0.1
		Aerosols/Fogs	0.1 – 50
Very Fine	61 – 105	Mist	50 – 100
Fine	106 – 235	Fine Fan Spray	100 – 400
Medium	236 – 340		
Coarse	341 – 403		
Very Coarse	404 – 502	Coarse Fan Spray	> 400

¹⁶ American Society of Agricultural and Biological Engineers (ASABE) developed the ASABE S572.1 Droplet Size Classification. This is the standard currently used by EAD.

¹⁷ Referenced from Mallis A. 2004. Handbook of pest control: the behavior, life history, and control of household pests. 9th ed. New York : Mac Nair-Dorland.

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