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Re-evaluation Decision

RVD2023-14

Sodium Hypochlorite, Calcium Hypochlorite and Their Associated End-use Products

Final Decision

(publié aussi en français)

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Re-evaluation decision for sodium hypochlorite, calcium hypochlorite and associated end-use products

Under the authority of the *Pest Control Products Act*, all registered pesticides must be re-evaluated by Health Canada's Pest Management Regulatory Agency (PMRA) to ensure that they meet current health and environmental standards and have value. The re-evaluation considers data and information from pesticide manufacturers, published scientific reports and other regulatory agencies, as well as comments received during public consultations. Health Canada applies internationally accepted risk assessment methods as well as current risk management approaches and policies.

This document presents the final re-evaluation decision¹ for the re-evaluation of the hypochlorite cluster (that is, available chlorine, present as calcium hypochlorite; available chlorine, present as sodium hypochlorite; and sodium hypochlorite), including the response to comments received and the required label updates. All products containing sodium hypochlorite and calcium hypochlorite regulated under the *Pest Control Products Act* in Canada are subject to this re-evaluation decision.

Sodium hypochlorite and calcium hypochlorite are non-selective and broad-spectrum antimicrobial agents. They are effective in controlling and preventing the growth of bacteria, algae, fungi, and viruses when used in aqueous solution. Related products are registered as antimicrobials in industrial settings, commercial ornamental water systems, municipal water treatment of sewage and industrial effluent, certain indoor hard surfaces, laundry additive, and swimming pools and spas. They are registered as commercial- and domestic-class products. In addition, sodium hypochlorite and calcium hypochlorite are listed in Schedule 2 of the Pest Control Products Regulations and are exempt from registration. These scheduled products are also included in the re-evaluation. Calcium hypochlorite products are formulated as solids and sodium hypochlorite products are formulated as liquids.

Some registered sodium hypochlorite products contain uses not regulated under the *Pest Control Products Act*. These include uses on beef carcass, poultry carcass, agriculture and dairy, food process plants, poultry reprocessing, poultry water immersion, fish process plant water, disinfectant uses in health care facilities and schools, and the claim "removes stains, disinfects and deodorizes." These uses and claims were not assessed in the current re-evaluation. Health Canada is proposing a new set of regulations under the *Food and Drugs Act* that will include surface sanitizers (currently regulated under the *Pest Control Products Act*) and surface disinfectants (currently regulated under the Food and Drug Regulations), collectively referred to as biocides. For more information about what is being proposed, please refer to *Canada Gazette*, Part I, Volume 156, Number 19: Biocides Regulations.

Currently registered technical grade active ingredients, manufacturing concentrates, and end-use products containing sodium hypochlorite or calcium hypochlorite can be found in the [Pesticide Product Information Database](#) and in Appendix I. The Proposed Re-evaluation Decision PRVD2022-21, *Sodium Hypochlorite, Calcium Hypochlorite and Their Associated End-use*

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

*Products*² containing the evaluation of sodium hypochlorite and calcium hypochlorite and proposed decision, underwent a 90-day consultation period ending on 14 March 2023. PRVD2022-21 proposed continued registration of sodium hypochlorite and calcium hypochlorite products in Canada, with the proposed updates to label directions and precautions to reflect the current labelling standards and improve clarity.

Health Canada received one comment during the public consultation. The comment did not result in revisions or changes to the proposed re-evaluation decision as described in PRVD2022-21. A reference list of information used as the basis for the proposed re-evaluation decision is included in PRVD2022-21.

Re-evaluation decision for sodium hypochlorite and calcium hypochlorite

Health Canada has completed the re-evaluation of sodium hypochlorite and calcium hypochlorite. Under the authority of the *Pest Control Products Act*, Health Canada has determined that continued registration of products containing sodium hypochlorite and calcium hypochlorite is acceptable. An evaluation of available scientific information found that the use of sodium hypochlorite and calcium hypochlorite products meet current standards for protection of human health and the environment and have acceptable value when used according to revised conditions of registration which includes label amendments.

Risk mitigation measures

Registered pesticide product labels include specific directions for use. Directions include risk mitigation measures to protect human health and the environment and must be followed by law. The required updated label statements as a result of the re-evaluation of sodium hypochlorite and calcium hypochlorite, are summarized below. These label amendments will be applied to Schedule 2 of the *Pest Control Products Regulations* as part of future regulatory amendments, as the label amendments for domestic-class products equally apply to products listed in Schedule 2. Refer to Appendix IV for details.

Human health

Label amendments:

- update signal words, precautionary statements, first aid statements, and personal protective equipment (PPE) requirements for user handling domestic-class swimming pool products;
- addition of PPE (protective eyewear) to all commercial-class calcium hypochlorite product labels;
- addition of the statement “Do not apply in the windy conditions” to the granular domestic-class calcium hypochlorite product labels.

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

Environment

Label amendments:

- Update environmental precautionary statements; and
- Updated storage and disposal statements.

Next steps

To comply with this decision, the required label updates must be implemented on all product labels no later than 24 months after the publication date of this decision document. Accordingly, both registrants and retailers will have up to 24 months from the date of this decision document to transition to selling the product with the newly amended labels. Similarly, users will also have the same 24-month period from the date of this decision document to transition to using the newly amended labels, which will be available on the Public Registry.

Refer to Appendix I for details on specific products impacted by this decision.

Other information

Any person may file a notice of objection³ regarding this decision on sodium hypochlorite and calcium hypochlorite and their associated end-use products 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 the Canada.ca website (Request a Reconsideration of Decision) or contact PMRA's Pest Management Information Service.

The relevant confidential test data on which the decision is based (as referenced in PRVD2022-21) are available for public inspection, upon application, in PMRA's Reading Room. For more information, please contact Health Canada's [Pest Management Information Service](#).

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

Appendix I Registered products containing calcium hypochlorite and sodium hypochlorite in Canada¹

Table 1 Products containing calcium hypochlorite requiring (label) amendments

Registration number	Class	Registrant	Product name	Formulation type	Active ingredient (%)
18123	T	Axiall, LLC.	Repak Calcium Hypochlorite	Solid	Calcium Hypochlorite 68.63%
21958	T	Innovative Water Care, LLC	Calcium Hypochlorite Granular 65	Granular	Calcium Hypochlorite 65.0%
21959	T	Innovative Water Care, LLC	Calcium Hypochlorite Granular 70	Granular	Calcium Hypochlorite 70.0%
22828	T	Innovative Water Care, LLC	Calcium Hypochlorite Tablets 65%	Tablet	Calcium Hypochlorite 65%
22829	T	Innovative Water Care, LLC	Calcium Hypochlorite Tablets 70%	Tablet	Calcium Hypochlorite 70.0%
23256	T	Axiall, LLC.	Pittabs Calcium Hypochlorite Tablets	Tablet	Calcium Hypochlorite 68.63%
23258	T	Innovative Water Care, LLC	Calcium Hypochlorite Granular 75%	Granular	Calcium Hypochlorite 75%
25243	T	Sani Marc Inc.	Chlore Sani-Marc Chlorinating Granules	Soluble Granules	Calcium Hypochlorite 65%
27919	T	Sani Marc Inc.	Break Up CLG 70%	Soluble Granules	Calcium Hypochlorite 72.3%
28227	T	RBF International Ltee	R-B 70 Chlore Tablet	Tablet	Calcium Hypochlorite 70%
28228	T	RBF International Ltee	R-B 70 Chlore Granular	Soluble Granules	Calcium Hypochlorite 70%
28397	T	Intrachem Industries Inc.	GF-Chlore 70G	Granular	Calcium Hypochlorite 70.5%

Registration number	Class	Registrant	Product name	Formulation type	Active ingredient (%)
28398	T	Intrachem Industries Inc.	GF-Chlore 70 T	Tablet	Calcium Hypochlorite 70.5%
28405	T	Sani Marc Inc.	Sani-Marc Chlore	Solid	Calcium Hypochlorite 65%
29583	T	Sani Marc Inc.	Sani-Marc Chlore-1	Soluble Granules	Calcium Hypochlorite 65%
31009	T	Intrachem Industries Inc.	GF-Chlore 65G	Granular	Calcium Hypochlorite 69.64%
31287	T	Intrachem Industries Inc.	Intra-Chlor 65G	Granular	Calcium Hypochlorite 69.64%
31288	T	Intrachem Industries Inc.	Intra-Chlor 70G	Granular	Calcium Hypochlorite 70.5%
31289	T	Intrachem Industries Inc.	Intra-Chlor 70T	Tablet	Calcium Hypochlorite 70.5%
31736	T	RBF International Ltee	RBF Cal Hypo Gran 70	Solid	Calcium Hypochlorite 70.5%
31737	T	RBF International Ltee	RBF Cal Hypo Gran 65	Solid	Calcium Hypochlorite 69.64%
31739	T	Intrachem Industries Inc.	Intra-Chlor 65T	Tablet	Calcium Hypochlorite 69.64%
31744	T	RBF International Ltee	RBF Cal Hypo Tab 70	Tablet	Calcium Hypochlorite 70.5%
32281	T	Axiall, LLC.	Repak Q	Solid	Calcium Hypochlorite 68.63%
32558	T	RBF International Ltee	RBF Cal Hypo Granular 65-2	Granular	Calcium Hypochlorite 67%
32559	T	RBF International Ltee	RBF Cal Hypo Granular 70-2	Granular	Calcium Hypochlorite 72%

Registration number	Class	Registrant	Product name	Formulation type	Active ingredient (%)
32651	T	Sani Marc Inc.	Sani Marc Chlore-2	Solid	Calcium Hypochlorite 69%
32956	T	Haixing Eno Chemical Co., Ltd	Eno Chlor Cal Hypo Granules 70	Granular	Calcium Hypochlorite 70%
33102	T	Sani Marc Inc.	Sani Marc Chlore-3	Soluble Granules	Calcium Hypochlorite 70%
31573	M	Sani Marc Inc.	Industrial Cal Hypo 65	Soluble Granules	Calcium Hypochlorite 65%
33214	M	Sani Marc Inc.	Industrial Cal Hypo 70	Soluble Granules	Calcium Hypochlorite 70%
22468	C	Innovative Water Care, LLC	Pulsar Plus Dry Chlorinator Briquettes	Tablet	Calcium Hypochlorite 65%
23425	C	Norweco Inc.	Bio-Sanitizer Tablets	Tablet	Calcium Hypochlorite 66.57%
24052	C	Axiall, LLC.	Accu-Tab SI Calcium Hypochlorite Tablets	Tablet	Calcium Hypochlorite 64.415%
30669	C	Axiall, LLC.	Versachlor System Chlorinating Tablets	Tablet	Calcium Hypochlorite 68.46%
31529	C	Innovative Water Care, LLC	CCH Chlorinating Tabs	Tablet	Calcium Hypochlorite 65%
23324	D	Innovative Water Care, LLC	HTH [®] Extra Super Shock for Swimming Pools	Granular	Calcium Hypochlorite 75%
28401	D	KIK Holdco Company Inc.	Bioguard Burnout Extreme	Granular	Calcium Hypochlorite 47%
28502	D	KIK Holdco Company Inc.	Omni Breakout Extra	Soluble Granules	Calcium Hypochlorite 47%

Registration number	Class	Registrant	Product name	Formulation type	Active ingredient (%)
28503	D	KIK Holdco Company Inc.	Pro Guard Chlorinating Granules	Soluble Granules	Calcium Hypochlorite 47%
28601	D	Innovative Water Care, LLC	HTH Regular Chlorinating Granules	Granular	Calcium Hypochlorite 47%
29098	D	Sani Marc Inc.	Calcium Hypochlorite 48%	Soluble Granules	Calcium Hypochlorite 48%
29394	D	Innovative Water Care, LLC	GLB® Super Shock	Granular	Calcium Hypochlorite 75%
30161	D	Innovative Water Care, LLC	HTH Super Chlorinating Granules	Granular	Calcium Hypochlorite 52.1%
30258	D	KIK Holdco Company Inc.	Bioguard Burn-Out3	Granular	Calcium Hypochlorite 57.9%
30658	D	Innovative Water Care, LLC	HTH Green to Blue I	Soluble Granules	Calcium Hypochlorite 52.1%
30935	D	KIK Holdco Company Inc.	Omni Breakout Total	Granular	Calcium Hypochlorite 57.9%
30936	D	KIK Holdco Company Inc.	Omni Breakout Extra II	Granular	Calcium Hypochlorite 57.9%
32235	D	Innovative Water Care, LLC	HTH Chlorinating Granules	Granular	Calcium Hypochlorite 47%
32357	D	Easy 123 Pool Care LLC	Clorox Pool&Spa Quick-Shock Treatment	Granular	Calcium Hypochlorite 57.9%
32358	D	Easy 123 Pool Care LLC	Clorox Pool&Spa Quick-Shock Chlorinating Granules	Granular	Calcium Hypochlorite 57.9%
33836	D	Sani Marc Inc.	Sani Marc PMF – Piscine	Tablet	Calcium Hypochlorite 50.9% Zinc Oxide 0.4%

Table 2 Products containing sodium hypochlorite requiring (label) amendments

Registration number	Class	Registrant	Product name	Formulation type	Active ingredient (%)
22709	T	The Clorox Company of Canada, Ltd.	Javex Ta	Solution	Sodium Hypochlorite 10.3%
23344	T	Brenntag Canada Inc.	Sodium Hypochlorite 10.8%	Solution	Sodium Hypochlorite 10.9%
25136	T	UBA Inc.	19% W/V Sodium Hypochlorite	Solution	Sodium Hypochlorite 14.5%
25619	T	Olin Corporation	Sodium Hypochlorite Solution	Solution	Sodium Hypochlorite 15.8%
26206	T	The Clorox Company of Canada, Ltd.	Javex Sodium Hypochlorite Solution	Solution	Sodium Hypochlorite 14.3%
26615	T	Hawkins, Inc.	Vertex CSS-16	Solution	Sodium Hypochlorite 15.6%
26684	T	KIK Holdco Company Inc., DBA Lavo	Lavo 12% Trade	Solution	Sodium Hypochlorite 10.3%
27344	T	KIK Holdco Company Inc., DBA Lavo	Lavo 19% Trade	Solution	Sodium Hypochlorite 15.8%
27346	T	KIK Holdco Company Inc., DBA Lavo	Lavo 15.5% Technical	Solution	Sodium Hypochlorite 16.6%
27459	T	KIK Holdco Company Inc., DBA Lavo	PL 12% Trade	Solution	Sodium Hypochlorite 10.3%
27873	T	Olin Canada ULC D.B.A. Olin Chlor Alkali Products	High Strength Hypochlorite	Solution	Sodium Hypochlorite 15.7%
27962	T	The Clorox Company of Canada, Ltd.	Javex – 16 Sodium Hypochlorite	Solution	Sodium Hypochlorite 16.58%
28118	T	KIK Corporation	KIK Sodium Hypochlorite 12% Technical	Solution	Sodium Hypochlorite 10.7%

Registration number	Class	Registrant	Product name	Formulation type	Active ingredient (%)
30656	T	Cleartech Industries Inc.	Hypochlor-16	Liquid	Sodium Hypochlorite 13.35%
30850	T	Occidental Chemical Corporation	Hypo-Alkaline Bleach Solution Technical	Liquid	Sodium Hypochlorite 12.9%
21271	M	UBA Inc.	12% Sodium Hypochlorite	Solution	Sodium Hypochlorite 10.3%
29788	M	KIK Holdco Company Inc., DBA Lavo	L-12% Trade	Solution	Sodium Hypochlorite 10.3%
29797	M	KIK Holdco Company Inc., DBA Lavo	PPL 12% Trade	Solution	Sodium Hypochlorite 10.3%
12419	C	KIK Holdco Company Inc., DBA Lavo	Lavo 12 Sodium Hypochlorite	Solution	Sodium Hypochlorite 10.3%
13731	C	Brenntag Canada Inc.	Sodium Hypochlorite	Solution	Sodium Hypochlorite 10.3%
15692	C	Charlotte Products Ltd.	Swish-Brite 12	Solution	Sodium Hypochlorite 10.3%
17076	C	Solenis Canada ULC	CSW 20 Microbiocide	Solution	Sodium Hypochlorite 10.3%
17363	C	Univar Solutions Canada Ltd.	Guardsman-12 Sodium Hypochlorite	Liquid	Sodium Hypochlorite 10.3%
17469	C	Suez Water Technologies & Solutions Canada	Spectrus OX1205C	Solution	Sodium Hypochlorite 10.3%
18417	C	Nalco Canada ULC	Formula MMD-3404 Industrial Liquid Microbiocide	Solution	Sodium Hypochlorite 10.3%
20643	C	Les Produits Sanitaires Lepine Inc.	Sanbec 12	Solution	Sodium Hypochlorite 10.3%

Registration number	Class	Registrant	Product name	Formulation type	Active ingredient (%)
21674	C	Les Produits Industriels Jean-Paul Cote Inc.	JPC 12	Solution	Sodium Hypochlorite 10.3%
22749	C	KIK Holdco Company Inc., DBA Lavo	Old Dutch 12 Concentrated Bleach	Solution	Sodium Hypochlorite 10.3%
24387	C	Glen Chemicals Limited	Clor-12 Chlorinating Liquid	Solution	Sodium Hypochlorite 10.3%
24655	C	Groulx & Robertson	Javel – 12 Sodium Hypochlorite	Solution	Sodium Hypochlorite 10.3%
24922	C	Clartech Industries Inc.	Advance 12A	Solution	Sodium Hypochlorite 10.3%
24954	C	Buckman Laboratories of Canada Ltd.	Busan 1125 Antimicrobial Agent	Solution	Sodium Hypochlorite 10.3%
25152	C	UBA Inc.	Javel-12 Sodium Hypochlorite	Solution	Sodium Hypochlorite 10.3%
25327	C	Chemco Products Inc.	Eclipse 633 Microbicide	Solution	Sodium Hypochlorite 10.3%
25478	C	Nalco Canada ULC	Stabrex ST70	Solution	Sodium Hypochlorite 6.36% Sodium Bromide 9.23%
25506	C	The Clorox Company of Canada, Ltd.	Javex – 12 Sodium Hypochlorite by Clorox	Solution	Sodium Hypochlorite 10.3%
25506.02	C	The Clorox Company of Canada, Ltd.	Atlantic-12 Sodium Hypochlorite	Solution	Sodium Hypochlorite 10.3%
26675	C	DPC Industries Inc	Dixichlor Max Sodium Hypochlorite Solution	Solution	Sodium Hypochlorite 11.9%
27035	C	NCH Canada Inc.	Actichlor Chlorinating Liquid	Solution	Sodium Hypochlorite 10.3%

Registration number	Class	Registrant	Product name	Formulation type	Active ingredient (%)
27296	C	Klenzoid Canada Inc.	Algaecide – C	Solution	Sodium Hypochlorite 10.3%
28171	C	Olin Canada ULC D.B.A. Olin Chlor Alkali Products	Sodium Hypochlorite 11%	Solution	Sodium Hypochlorite 11%
28172	C	Olin Canada ULC D.B.A. Olin Chlor Alkali Products	Sodium Hypochlorite 12.5%	Solution	Sodium Hypochlorite 12.9%
28279	C	UBA Inc.	UBA Sodium Hypochlorite	Solution	Sodium Hypochlorite 10.3%
28717	C	Produits Chimiques Magnus Ltee	Magnatrol 40A	Solution	Sodium Hypochlorite 10.3%
28933	C	Controlchem Canada Ltd.	Controlchem 2621 Liquid Microbicide	Solution	Sodium Hypochlorite 10.3%
28934	C	Controlchem Canada Ltd.	Controlchem 2620 Liquid Microbicide	Solution	Sodium Hypochlorite 10.3%
29008	C	Quatic Industries Limited	Q-Chlor	Solution	Sodium Hypochlorite 10.3%
29141	C	Nalco Canada ULC	Stabrex ST70Can For Kits	Solution	Sodium Hypochlorite 6.36% Sodium Bromide 9.23%
29183	C	The Clorox Company of Canada, Ltd.	Clorox Commercial Solutions Javex® 12 Bleach by Clorox	Solution	Sodium Hypochlorite 10.3%
29203	C	KIK Holdco Company INC., DBA Lavo	Sodium Hypochlorite 12	Solution	Sodium Hypochlorite 11%
29243	C	Jutzi Water Technologies Inc.	Formula MB 3050	Solution	Sodium Hypochlorite 10.3%

Registration number	Class	Registrant	Product name	Formulation type	Active ingredient (%)
29852	C	KIK Holdco Company Inc., DBA Lavo	OD-12%	Solution	Sodium Hypochlorite 10.3%
29876	C	Flochem Ltd.	Flochem-12B Sodium Hypochlorite Solution	Solution	Sodium Hypochlorite 10.3%
30045	C	Javel Bois-Francis Inc.	Javel BF-12	Solution	Sodium Hypochlorite 9.8%
30174	C	Aquarian Chemicals Inc.	Aquarian C611	Solution	Sodium Hypochlorite 10.3%
30242	C	Rochester Midland Canada Corporation	Unica 910	Solution	Sodium Hypochlorite 10.3%
30243	C	Chemisphere Inc.	Clo-12 Liquid Microbiocide	Solution	Sodium Hypochlorite 10.3%
30317	C	Kemira Chemicals, Inc.	Fennosan H-12	Solution	Sodium Hypochlorite 10.3%
30514	C	Megalab Inc.	HYPO 12	Solution	Sodium Hypochlorite 10.3%
30754	C	Clartech Industries Inc.	Hypochlor-12	Solution	Sodium Hypochlorite 10.3%
31164	C	Occidental Chemical Corporation	Hypo-Alkaline Bleach Solution EUP	Solution	Sodium Hypochlorite 10.3%
31206	C	Acérgiculture des Bois-Francis Inc.	ACG-12	Solution	Sodium Hypochlorite 9.8%
31414	C	1221122 Ontario Ltd. DBA Keytech Water Management	Biotech V	Solution	Sodium Hypochlorite 10.3%
31600	C	Irving Blending & Packaging	Irving 12-Sodium Hypochlorite	Solution	Sodium Hypochlorite 10.3%

Registration number	Class	Registrant	Product name	Formulation type	Active ingredient (%)
32555	C	Solesco Inc	Solubact-Ox	Solution	Sodium Hypochlorite 10.3%
32744	C	PPG Canada Inc.	PPG Chemclor	Solution	Sodium Hypochlorite 10.3%
32870	C	RBF International Ltee	Chem Experts Krystal 12	Solution	Sodium Hypochlorite 10.3%
33031	C	Solesco Inc	Solubact-Br	Solution	Sodium Hypochlorite 6.36% Sodium Bromide 9.23%
33058	C	PMC Water Systems Services Inc	C-3612	Solution	Sodium Hypochlorite 10.3%
33059	C	Nalco Canada ULC	Stabrex ST70Can	Solution	Sodium Hypochlorite 6.36% Sodium Bromide 9.23%
33080	C	Kencro Chemicals Limited	Kenchlor-12	Solution	Sodium Hypochlorite 10.3%
33585	C	Chemtreat, Inc.	SodiumhypoC	Solution	Sodium Hypochlorite 10.3%
33812	C	Traitement d'eau expert Inc.	TEE-200A	Solution	Sodium Hypochlorite 10.3%
33844	C	Sodrox Chemicals Ltd.	Sodrox Sodium Hypochlorite 12.5%	Solution	Sodium Hypochlorite 12.9%
33855	C	Sodrox Chemicals Ltd.	Sodrox Sodium Hypochlorite 11%	Solution	Sodium Hypochlorite 11%
34131	C	RBF International Ltee	Chem Experts Krystal 12-Liquid Shock	Solution	Sodium Hypochlorite 10.3%
34203	C	Kurita Canada Inc.	Biotrol C12.5	Solution	Sodium Hypochlorite 10.3%

Registration number	Class	Registrant	Product name	Formulation type	Active ingredient (%)
34265	C	Omnichem Inc.	Oxychlor12	Solution	Sodium Hypochlorite 10.3%
34796	C	Pinnacle Aquatic Group Inc.	Pur Chlor 12	Solution	Sodium Hypochlorite 10.3%
28971	D	KIK Corporation	Shock Chlorinating Liquid for Pools	Solution	Sodium Hypochlorite 10.7%
30454	D	KIK Corporation	Kem-Tek Chlorinating Liquid for Pools	Solution	Sodium Hypochlorite 10.7%

¹ As of 26 April 2023, excluding discontinued products or products with a submission for discontinuation.

T = Technical Grade Active Ingredient, M = Manufacturing Concentrate, C = Commercial, D = Domestic

Appendix II List of commenters to PRVD2022-21

List of commenter's affiliations for comments submitted in response to PRVD2022-21

Category	Commenter
Public	General public

Appendix III Comment and response

Health Canada received one written comment during the public consultation for the sodium hypochlorite and calcium hypochlorite proposed re-evaluation decision. Commenter's affiliation is listed in Appendix II. The comment was considered during the final decision phase of this re-evaluation. The summarized comment and Health Canada's response is provided below.

1.0 Comment related to the value assessment

1.1 Comment

A general comment was received from the public related to the value of sodium and calcium hypochlorite in swimming pool and washing machines. The comment indicated that there are natural non-toxic products available for pools and washing machines.

Health Canada response

As indicated in PRVD2022-21, based on a review of the science, the PMRA has concluded that potential risks to human health and the environment from the use of sodium and calcium hypochlorite products are acceptable when used in accordance with revised label directions. Likewise, the value assessment has determined that sodium and calcium hypochlorite products are effective in controlling and preventing the growth of bacteria, algae, fungi, and viruses when used in aqueous solution. The comment did not result in changes to the proposed re-evaluation decision as described in PRVD2022-21.

Appendix IV Label amendments for products containing sodium hypochlorite and calcium hypochlorite

Information on approved labels of currently registered products should not be removed unless it contradicts the label statements provided below.

1. Technical grade active ingredient and manufacturing concentrate products:

1.1 Replace the term “guarantee” with “active ingredient”.

1.2 For products containing calcium hypochlorite, the following are required:

1.2.1 On primary display panel include the following signal words:

“WARNING POISON
DANGER CORROSIVE TO EYES AND SKIN”

1.2.2 In the Section titled **PRECAUTION STATEMENTS**, include the following:

“May be fatal if swallowed.
CORROSIVE to the eye. DO NOT get in eyes.
Corrosive to the skin. DO NOT get on skin.
Harmful if inhaled. Avoid breathing dusts and fumes.”

1.3 For products containing sodium hypochlorite, the following are required:

1.3.1 On primary display panel include the following signal words:

“DANGER
CORROSIVE TO EYES AND SKIN”

1.3.2 In the Section titled **PRECAUTION STATEMENTS**, include the following:

“Harmful if swallowed.
CORROSIVE to the eye. DO NOT get in eyes.
Corrosive to the skin. DO NOT get on skin.
Harmful if inhaled. Avoid breathing vapour or mist.”

1.4 All registered sodium hypochlorite and calcium hypochlorite product labels must include standard first aid statements as per the new PMRA Guidance Document, *First Aid Labelling Statements* (Canada, 2022), where applicable.

1.5 In the Section titled **ENVIRONMENTAL PRECAUTIONARY STATEMENT**, include the following:

“*Toxic to aquatic organisms.
DO NOT discharge effluent containing this product into sewer systems, lakes,
streams, ponds, estuaries, oceans, or other waters.*”

1.6 The following statement must be included in a section entitled **STORAGE**:

“Store this product away from food or feed.”

1.7 The following statement must be included in a section entitled **DISPOSAL**:

“Canadian manufacturers should dispose of unwanted active ingredients and containers in accordance with municipal and provincial regulations. For additional details and clean up of spills, contact the manufacturer and the provincial regulatory agency.”

2. Commercial-class products:

2.1 Replace the term “guarantee” with “active ingredient”.

2.2 For products containing calcium hypochlorite, the following are required:

2.2.1 On primary display panel include the following signal words:

*“WARNING POISON
DANGER CORROSIVE TO EYES AND SKIN”*

2.2.2 In the Section titled **PRECAUTION STATEMENTS**, include the following:

*“May be fatal if swallowed.
CORROSIVE to the eye. DO NOT get in eyes.
Corrosive to the skin. DO NOT get on skin.
Harmful if inhaled. Avoid breathing dusts and fumes.
Wear long-sleeved shirt, long pants, chemical-resistant gloves, protective eyewear
(goggles or face shield), socks and shoes when handling this product.”*

2.3 For products containing sodium hypochlorite, the following are required:

2.3.2 On primary display panel include the following signal words:

*“DANGER
CORROSIVE TO EYES AND SKIN”*

2.3.3 In the Section titled **PRECAUTION STATEMENTS**, include the following:

*“CORROSIVE to the eye. DO NOT get in eyes.
Corrosive to the skin. DO NOT get on skin.
Harmful if swallowed or inhaled. Avoid breathing vapour and sprays.”
Wear long-sleeved shirt, long pants, chemical-resistant gloves, protective eyewear
(goggles or face shield), socks and shoes when handling this product.*

2.3.4 For commercial products registered for beverage pasteurizer uses with closed loading and transfer systems, add the following in the Section titled **DIRECTIONS FOR USE**:

“For use with closed loading and transfer systems only.”

2.3.5 For commercial products registered for beverage pasteurizer uses not using closed loading and transfer systems, add the following in the Section titled

DIRECTIONS FOR USE:

“NOTE: The water in the systems treated with this product must not come into direct contact with food or beverage. Residual chemicals from the product on the exterior of the cans, bottles or other containers are effectively removed by potable water wash at discharge end.”

2.4 In the Section titled **ENVIRONMENTAL PRECAUTIONARY STATEMENT**, include the following for products registered for industrial uses:

“Toxic to aquatic organisms.

This registration is granted under the Pest Control Products Act and does not exempt the user from any other legislative requirements.

Use of this product and management of any resulting discharge or release of effluents containing this product must also be in accordance with the Fisheries Act and with any other applicable federal or provincial legislation.

Consult with provincial regulatory authorities on any authorizations or other requirements for use of this product and management of any resulting discharge or release of effluents containing this product.”

2.5 In the Section titled **ENVIRONMENTAL PRECAUTIONARY STATEMENT**, include the following for products **not** registered for industrial uses:

“Toxic to aquatic organisms.

This registration is granted under the Pest Control Products Act and does not exempt the user from any other legislative requirements.”

2.6 The following statement must be included in a section entitled **STORAGE:**

“Store this product away from food or feed.”

2.7 Add the following statement to a section entitled **DISPOSAL:**

“Follow provincial instruction for any required additional cleaning of the container prior to its disposal.

Make the empty container unsuitable for further use.

Dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.”

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- 2.8 Add the following directions of use to commercial end-use products containing sodium hypochlorite registered for use in municipal water treatment of sewage and industrial effluent:

Directions for Use

1. *[End-use product name] is only to be used in automatic feeding devices designed for wastewater sanitation.*
2. *Fill and adjust feeding device according to manufacturer's recommendations and monitor chlorine residual/coliform level as required by applicable regulatory agency.*
3. *On the average, satisfactory disinfection of wastewater effluent can be obtained when the chlorine residual is 0.5 ppm after 15 minutes contact. Although the chlorine residual is the critical factor in disinfection, the importance of correlating chlorine residual with bacteria kill must be emphasized.*

3. Domestic-class products

- 3.1 Replace the term “guarantee” with “active ingredient”.

- 3.2 For products containing calcium hypochlorite, the following are required:

- 3.2.1 On primary display panel include the following signal words:

*“WARNING POISON
DANGER CORROSIVE TO EYES AND SKIN”*

- 3.2.2 In the Section titled **PRECAUTION STATEMENTS**, include the following:

*“May be fatal if swallowed.
CORROSIVE to the eye. DO NOT get in eyes.
Corrosive to the skin. DO NOT get on skin.
Harmful if inhaled. Avoid breathing dusts and fumes.
Do not apply in windy conditions.
Wear eye protection, protective clothing, and rubber gloves when handling this product.”*

- 3.3 For products containing sodium hypochlorite, the following are required:

- 3.3.1 On primary display panel include the following signal words:

*“DANGER
CORROSIVE TO EYES AND SKIN”*

- 3.3.2 In the Section titled **PRECAUTION STATEMENTS**, include the following:

*“CORROSIVE to the eye. DO NOT get in eyes.
Corrosive to the skin. DO NOT get on skin.
Harmful if swallowed or inhaled. Avoid breathing vapour or sprays.
Wear eye protection, protective clothing, and rubber gloves when handling this product.”*

3.4 In the Section titled **ENVIRONMENTAL PRECAUTIONARY STATEMENT**, include the following:

“Toxic to aquatic organisms.

This registration is granted under the Pest Control Products Act and does not exempt the user from any other legislative requirements.”

3.5 Add the following statement to a section titled **DISPOSAL**:

“DO NOT reuse empty container. Dispose the empty container with household garbage.”

“Unused or partially used products should be disposed at provincially or municipally designated hazardous waste disposal sites.”

3.6 The following statement must be included in a section entitled **STORAGE**:

“Store this product away from food or feed.”

All label amendments required for domestic-class products as result of this re-evaluation would apply to scheduled products used in swimming pools and spas.