

OMRI CANADA Standards Manual

STANDARDS FOR THE REVIEW OF PRODUCTS INTENDED FOR USE IN
CANADIAN CERTIFIED ORGANIC PRODUCTION OR PROCESSING
Includes the OMRI Canada Permitted Substance Categories



Crop · Livestock · Processing & Handling



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OMRI is a 501(c)(3) nonprofit organization. OMRI's mission is to support the growth and trust of the global organic community through expert, independent and transparent verification of input materials, and through education and technical assistance.

OMRI Quality Policy

OMRI provides professional, independent, and transparent review of materials and processes to determine their suitability for producing, processing, and handling organic food and fiber. The OMRI Review Program is committed to maintaining a timely, courteous, accurate, transparent, and consistent approach throughout the program and on a day-to-day basis.

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Part 1: About the OMRI Standards for Compliance with the Canadian Organic Standards

The *OMRI Canada Standards Manual*[®] outlines specific criteria used along with the Canadian Organic Standards (COS) to evaluate products for listing in the *OMRI Canada Products List*[®]. This manual is designed to give applicants and registrants to the OMRI Canada Review Program the information necessary to know whether a product would be compliant if it were submitted as an application to OMRI.

The Canada Organic Regime (COR) which encompasses the COS is the Canadian government's system for regulating organic agricultural products. The Canadian Food Inspection Agency (CFIA) is responsible for the monitoring and enforcement of the regulations. Under the Regime, Certification Bodies are accredited by CFIA based on the recommendation of CFIA designated Conformity Verification Bodies. The Certification Bodies are responsible for verifying the application of the Canadian Organic Standards.

The COS are the foundation of the *OMRI Canada Standards*

Manual. The COS can be found at CAN/CGSB 32.310 – General principles and management standards and CAN/CGSB 32.311 – Permitted Substances List (PSL). The OMRI Canada Permitted Substances Categories contained within this manual are based on the PSL. OMRI may review products against additional standards that are provided in more detail on the OMRI website at OMRI.org and in OMRI's application materials.

In addition to the COS and the *OMRI Canada Standards Manual*, OMRI maintains an Administrative Procedures Manual for internal use that provides greater detail to policies and procedures outlined in the *OMRI Policy Manual*[®]. Additional requirements for application to the OMRI Review Program are described in the *OMRI Policy Manual*, on OMRI's website, and in the application materials. OMRI's standards and policies are updated as necessary to reflect changes to applicable federal laws or regulations. Please refer to the OMRI website, OMRI.org, for the most current information.

Part 2: General Review Standards

2.1 Permitted Substance Determination

CAN/CGSB 32.310 and CAN/CGSB 32.311 reference the use of permitted substances in organic production. Primarily, if substances appear in the PSL, they are allowed for use in accordance with source and use restrictions. In some cases, the PSL stipulates that only non-synthetic forms of the substance may be used, or that the synthetic form can only be used if the non-synthetic form is commercially unavailable. OMRI uses the definition of "synthetic substance" as it appears in the CAN/CGSB 32.310 Clause 3 (Terms and Definitions). A synthetic substance is a "manufactured substance, including petrochemicals, formulated by a chemical process

or by a process that chemically alters compounds extracted from plant, microorganisms, animal or mineral sources. This term does not apply to compounds synthesized or produced by physical processing or biological processes, which may include heat and mechanical processing. However, minerals altered through chemical reactions caused by heating or burning shall be classified as synthetic." The term "non-synthetic" is defined in the *OMRI Canada Standards Manual* Glossary. OMRI also refers to the Permitted Substances Decision Tree in Appendix B of CAN/CGSB 32.310 as well as the Standards Interpretation Committee's (SIC) Question and Answers when determining whether a substance is permitted.

Part 3: Prohibited Substances, Materials, or Techniques in Organic Production and Preparation (CAN/CGSB 32.310 Subclause 1.4 or 1.5)

OMRI does not permit products that contain a substance prohibited by Subclause 1.4 or 1.5 of CAN/CGSB 32.310, as follows:

3.1 Genetic Engineering

Products of and materials from genetic engineering, as defined in CAN/CGSB-32.310, are prohibited, except as specified in the PSL. Genetic engineering refers to techniques by which the genetic material of an organism is changed in a way that does not occur naturally by multiplication and/or natural recombination. Examples of these techniques include, but are not limited to: recombinant DNA techniques that use vector systems; techniques involving the direct introduction into the organisms of hereditary materials prepared outside the organism; and cell fusion (including protoplast fusion) or hybridization techniques that overcome natural physiological, reproductive or recombination barriers, where the donor cells/protoplasts do not fall within the same taxonomic family.

3.2 Nanotechnology

Products, materials or processes intentionally using nanotechnology, as defined in CAN/CGSB-32.310, are prohibited with some exceptions. Nanotechnology refers to the manipulation of matter at atomic, molecular, or macromolecular dimensions typically between 1 and 100 nm to create materials, devices and systems with fundamentally new properties and functions. Exceptions include naturally occurring nano-sized particles or those produced incidentally through normal processes such as grinding flour, and contact surfaces where transference of nano-sized particles to organic products is unintended and unlikely to occur.

3.3 Irradiation

Irradiation, as defined in CAN/CGSB-32.310, is prohibited, except as specified in the PSL. Irradiation is a sanitation or preservative method for packaged or bulk foodstuffs that controls insect infestation and that reduces microbial load by treatment

with ionizing radiation, which includes gamma-radiation from Cobalt-60 or Cesium-137 source, X-rays generated from a machine source operated at or below an energy level of 5 MeV, and electrons generated from a machine source operated at or below an energy level of 10 MeV.

3.4 Prohibited Soil Amendments

Soil amendments, such as fertilizers or composted plant and animal materials, that contain substances not listed in the PSL are prohibited.

3.5 Sewage Sludge

Sewage sludge as defined in CAN/CGSB-32.310 is prohibited. Sewage sludge is defined as solid, liquid or semisolid residues generated by municipal or industrial sewage treatment facilities. Sewage sludge includes but is not limited to: domestic septage; scum or solids removed in primary, secondary or advanced wastewater treatment processes; or material derived from sewage sludge.

3.6 Prohibited Crop Production Aids and Pesticides

Any crop production aids or substances not listed in the PSL are prohibited.

3.7 Prohibited Growth Regulators

Any plant, fungal and animal growth regulators not specified in the PSL are prohibited.

3.8 Cloned Livestock

Cloned livestock and their descendants are prohibited.

3.9 Prohibited Veterinary Drugs

Veterinary drugs, including antibiotics and parasiticides, are prohibited, except as permitted by CAN/CGSB-32.310.

3.10 Non-organic Processing Substances

Non-organic ingredients, food additives and processing aids used in organic product preparation, including sulphates, nitrates and nitrites, are prohibited, except as permitted by CAN/CGSB-32.310 or specified in the PSL.

3.11 Equipment, Packaging and Containers with Prohibited Substances

Equipment, harvest and storage containers, storage facilities and packaging materials treated with fungicides, preservatives, fumigants and pesticides not listed in the PSL, are prohibited, except as permitted in 8.2.3 and 8.3.3 of CAN/CGSB-32.310. **OMRI does not review products that may be allowed by certifiers under these exceptions.**

3.12 Prohibited Formulants

Formulants are prohibited except as specified in the PSL.

Part 4: Additional OMRI Standards

In addition to the Canadian Organic Standards, OMRI reviews products to additional standards that are summarized below. Further details are identified on OMRI's website at OMRI.org and in OMRI's application materials. These additional standards include OMRI's interpretation of the COS to ensure product compliance.

4.1 Additional Standards for Crop Fertilizers and Soil Amendments

The PSL allows for some substances to be produced using specific synthetic substances as extractants or pH adjusters. OMRI requires that synthetic formulants are not used in quantities greater than the amount necessary for extraction or stabilization. OMRI has developed thresholds for synthetic extractants and pH adjusters used in crop production, and products that exceed these thresholds and that may be fortified with plant nutrients such as nitrogen, phosphorous, and/or potassium are prohibited.

The PSL states, "When evidence indicates that compost feedstocks could contain a substance prohibited by subclause 1.4 or 1.5 of CAN/CGSB 32.310 known to be potentially persistent in compost, testing of the compost before use is required or reference to scientific literature which establishes that the specific potential contaminant(s) will degrade during the composting

process." To document the absence of contaminants, operators may provide a laboratory analysis of the final composted product to demonstrate compliance with OMRI's standards for residual contaminants, which are outlined on OMRI's website at OMRI.org.

Clause 5.4 of CAN/CGSB 32.310 requires that plant and livestock materials are managed in a manner that does not contribute to the contamination of crop, soil or water, by plant nutrients, pathogenic organisms, heavy metals or prohibited substance residue. Maximum acceptable levels are described in the COS for some contaminants. In addition, OMRI has developed standards to help operators avoid contamination from pathogenic organisms, which are outlined on OMRI's website at OMRI.org. OMRI will identify OMRI Listed products that test above established pathogen thresholds in the *OMRI Canada Products List* with a cautionary statement that application to certified organic farms must not contribute to contamination of crops, soil or water.

4.2 Additional Standards for Pesticides

All active ingredients and formulants (inert ingredients) in pesticides must be reviewed and meet OMRI standards. A complete list of formulants must be disclosed for review. OMRI will not accept an application that simply lists "inert

ingredients” as a component.

All pesticides are subject to the restriction in CAN/CGSB 32.310 subclause 5.6.1 which requires that pest, disease and weed control are centered on organic management practices aimed at enhancing crop health and reducing losses caused by weeds, disease and pests. Organic management practices include cultural practices (e.g., rotations, establishment of a balanced ecosystem, and use of resistant varieties) and mechanical techniques (e.g., sanitation measures, cultivation, traps, mulches and grazing) and physical techniques (e.g., flaming against weeds, heat against diseases).

OMRI listing is not a substitute for legally required registration by the Pest Management Regulatory Agency (PMRA) or other regulatory agencies. All pesticide products sold in Canada must be PMRA registered.

4.3 Additional Standards for Processing Sanitizers

All non-organic ingredients listed on Safety Data Sheets (SDS) and active ingredients on the label of formulated cleaners, sanitizers, and disinfectants shall be listed in Tables 7.3 or 7.4. Other non-organic ingredients used without a removal event shall be limited to substances listed in Table 7.3; water;

compounds used to treat drinking water; and product stabilizers, such as HEDP (1-hydroxyethane 1,1-diphosphonic acid) or dipicolinic acid, whose function is to prevent the chemical degradation of substances listed in Table 7.3. Table 7.4 compliant products may contain non-active ingredients, including, but not limited to, dyes, fragrances, and chemical agents used to prevent physical separation of foams or emulsions.

OMRI does not review or list cleaners, disinfectants and/or sanitizers which may be permitted in Canadian organic production under CAN/CGSB 32.310 subclause 8.2.3.

4.4 Additional Standards for Products Produced on Genetically Engineered Substrate or Growth Media

The PSL requires that substrates or growth media that are not present in the final product shall be non-genetically engineered if commercially available. OMRI will identify OMRI Listed products that were produced using genetically engineered substrate or growth media on the *OMRI Canada Products List*, which are subject to commercial availability restrictions in accordance with CAN/CGSB 32.311 subclauses 4.1.3.b, 5.1.2.b and 6.2.1.b.

Part 5: Introduction to OMRI Canada Permitted Substances Categories

The OMRI Canada Permitted Substances Categories include an explanation of the permitted uses, standards of identity, and regulatory references for many substances that may be used in organic production under the COS. These descriptions are provided to assist applicants in choosing the appropriate use categories for potential listing in the *OMRI Canada Products List*[®]. The OMRI Canada Permitted Substances Categories conform to the COS, and are based in the PSL (CAN/CGSB 32.311).

The OMRI Canada Permitted Substances Categories are divided into three sections: Crop Production Categories, Livestock Production Categories, and Processing and Han-

dling Categories. Categories included in each section are sorted alphabetically and designated with a two-letter OMRI Class code and an OMRI Status that indicates that they are Allowed or Allowed with Restrictions under the COS. OMRI's Allowed with Restrictions status indicates use restrictions that are required for compliant use of the material under the COS. Further information on status is given at the beginning of the Crops, Livestock, and Processing and Handling sections.

Other features of the OMRI Canada Permitted Substances Categories for crops, livestock and processing listings include:

- **OMRI Class** – groups materials into several distinct end-use classes. OMRI also uses these Class Codes in

the *OMRI Canada Products List*[®] for easy referral to the OMRI Canada Permitted Substances Categories.

- **OMRI Annotation** – details use parameters, and provides additional information and COS specifications for the generic material.
- **CGSB Reference** – cites applicable regulatory sections for the material listing.

5.1 How to Use the OMRI Canada Permitted Substances Categories

Applicants to the OMRI Canada Review Program must choose a category that corresponds with the intended product use. For example, those who produce a product for use as a fertilizer should search within the CROPS section. Or, alternatively, those who produce animal health care products should search within the LIVESTOCK section.

It is also important to identify when and how the material is permitted for use. Note the class or classes for which the prod-

uct is permitted for use. The class is given as a two-letter code just below the material name. A key to the OMRI class codes appears at the bottom of each even numbered page. OMRI Listed[®] products will only be allowed for use within the specified OMRI class for that material entry.

To stay current with COS changes that may affect a material status and/or use, applicants should regularly check the OMRI website (OMRI.org) for standards updates.

5.2 Regulatory Compliance

In addition to the COS and the OMRI Standards, other national, federal, state, and local laws and regulations may apply to the use of materials on organic operations. OMRI makes no representation that the materials listed here comply with any of these other requirements. It is the user's responsibility to determine the compliance of a particular substance with all applicable laws and regulations.

OMRI Canada Permitted Substances Categories

Crop, Livestock and Processing & Handling

Crop

PRODUCTION CATEGORIES

Class Coding

Crop production materials are classified by OMRI according to the following Use Classes:

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed and Disease Control

CT: Crop Management Tools and Production Aids

Crop Fertilizers and Soil Amendments (CF) are soil amendments and crop nutrition substances which correspond to listings in Table 4.2 (column 1) of the Permitted Substances List (PSL) (CAN/CGSB-32.311). They are substances applied to the soil to improve fertility and tilth and to correct soil problems. Fertilizers, plant foods and soil amendments are primarily used for their plant nutrient content and may be applied to the soil or to the foliage of plants. Examples include compost, animal manures, blood/bone meals, plants and plant by-products. Use of fertilizers and soil amendments must comply with requirements of CAN/CGSB-32.310 subclauses 5.4 (Soil Fertility and Crop Nutrient Management) and 5.5 (Manure Management), which include requirements for using organic matter produced on the operation as the basis of the nutrient cycling program, and that supplemental nutrient sources are applied in accordance with good nutrient management practices and do not contribute to the contamination of crops, soil or water by plant nutrients, pathogenic organisms, heavy metals or residues of prohibited substances. Subclause 5.5.1.1 also requires that animal manure produced on an operation must be used first and specifies that non-organic manure may be permitted only if organic manure is commercially unavailable. Unless otherwise specified, the soil amendments and crop nutrients listed in Table 4.2 (column 1) of the PSL shall not contain substances prohibited by subclause 1.4 or 1.5 of CAN/CGSB-32.310 or not permitted by the PSL.

Crop Pest, Weed and Disease Control (CP) substances are those used to control pests (disease, weed or insect), and they correspond to substances listed in Table 4.2 (column

2) of the PSL. They include vertebrate animal pest management substances, plant disease management substances, insect pest management (invertebrates), mites, molluscs and crustacean management substances; and nematode management substances. Plant growth regulators are also considered pest control substances when used to control “any injurious or troublesome organic function of a plant,” and are therefore subject to regulation under the Pest Management Regulatory Agency (PMRA) Pest Control Products Act.

Pest control products shall not contain substances prohibited by subclause 1.4 or 1.5 of CAN/CGSB-32.310, or substances that are not permitted by the Permitted Substances List. Biological, botanical, or other pest control substances listed in Table 4.2 (column 2) of the PSL may be used only when organic management practices and mechanical techniques alone cannot prevent or control crop pests, disease or weeds, per CAN/CGSB-32.310 subclause 5.6.2. The conditions for using such substances must be documented in the organic plan, in accordance with clause 4 of CAN/CGSB-32.310. Use of pest control substances must meet the requirements of any limiting annotation specified in Table 4.2 (column 2) of the PSL.

Crop Management Tools and Production Aids (CT) include inputs used in conjunction with other substances, which may or may not be directly applied to the crop or soil, and which do not provide a recognized plant nutrient, soil conditioning or crop protection function. They are listed in Table 4.2 (column 2) of the PSL, together with crop pest, weed and disease control substances (CP). Examples of crop management tools and production aids include adjuvants, equipment cleaners, and compost inoculants without nutrient or pest control claims. These products shall not contain substances prohibited by subclause 1.4 or 1.5 of CAN/CGSB-32.310, or not permitted by the PSL.

Status

Crop production substances have one of the following OMRI Status designations:

Allowed (A) crop production substances include those that appear on Table 4.2 (column 1 and/or 2) of the PSL with no annotation that limits their use. The OMRI “Allowed” status therefore indicates that these materials are not subject to use

Class Codes

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids

restrictions beyond the general management requirements in CAN/CGSB-32.310 subclauses 5.4 and 5.5.

Allowed with Restrictions (R) crop production substances include those that appear on Table 4.2 (column 1 or 2) of the PSL with annotations that limit their use. The OMRI “Allowed with Restrictions” status therefore indicates that these substances are subject to use restrictions. These restrictions are outlined in the COS regulations and include: a) application of raw manure (CAN/CGSB-32.310 subclause

5.5.2.5), b) crop pest, disease and weed management standards (CAN/CGSB-32.310 subclause 5.6.2), and c) specific restrictions detailed in the PSL. Source restrictions, such as a requirement to only use mined sources of a mineral, are evaluated in OMRI’s review process, and compliant sources do not result in a substance being listed as “Allowed with Restrictions.” However, substances that are permitted only if preferred alternatives are not commercially available may be listed as “Allowed with Restrictions.”

Listings

Acetic Acid **Allowed With Restrictions**

Class: CP

Sources other than petrochemicals can be used. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.311 Table 4.2 (column 2)

Acetic Acid **Allowed With Restrictions**

Class: CT

Sources other than petrochemicals can be used. For use as an adjuster. For use as a pH adjuster. For cleaning seeds.

CGSB Reference: 32.311 Table 4.2 (column 2)

Acid Activators for Chlorine Dioxide **Allowed With Restrictions**

Class: CT

For the generation of chlorine dioxide. Use of resulting chlorine dioxide must comply with CAN/CGSB-32.311. Must not exceed maximum levels for safe drinking water when used in direct contact with organic products and product contact surfaces without a removal event, including: a) for wash water in direct contact with crops or food, or b) in flush water from cleaning irrigation systems, equipment, and storage and/or transport units - application to crops or fields is permitted. May be used up to maximum label rates on organic product contact surfaces provided that a removal event has eliminated the substance prior to organic production. See also CHLORINE COMPOUNDS.

CGSB Reference: 32.311 Table 7.3; 7.4

Adhesives for sticky traps and barriers **Allowed**

Class: CP

CGSB Reference: 32.311 Table 4.2 (column 2)

Agar **Allowed With Restrictions**

Class: CF

For use in initial mushroom spawn production.

CGSB Reference: 32.311 Table 4.2 (column 1)

Alcohol

Class: CT

See EXTRACTANTS.

Alfalfa Meal or Pellets **Allowed**

Class: CF

From organic sources. Shall be organic if commercially available.

CGSB Reference: 32.311 Table 4.2 (column 1)

Alfalfa Meal or Pellets **Allowed With Restrictions**

Class: CF

From non-organic sources. May only be used if organic sources are not commercially available.

CGSB Reference: 32.311 Table 4.2 (column 1)

Algae

Class: CF

See AQUATIC PLANTS AND AQUATIC PLANT PRODUCTS.

Amino Acids **Allowed**

Class: CF, CT

Derived from plants, animals or microorganisms, and extracted, hydrolyzed or isolated by non-chemical means, such as physical separation, or by substances listed in Table 4.2 (Column 1 or Column 2) excluding Formulants used in crop production aids.

CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)

Amino Acids

Class: CP

Derived from plants, animals or microorganisms, and extracted, hydrolyzed or isolated by non-chemical means, such as physical separation, or by substances listed in Table 4.2 (Column 1 or Column 2) excluding Formulants used in crop production aids. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Ammonium Carbonate

Class: CP

For use as an attractant in insect traps. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Aquatic plants and aquatic plant products

Class: CF, CT

Aquatic plant products may be extracted by using the following substances in order of preference: a) substances in Table 4.2 Extractants; b) potassium hydroxide; c) sodium hydroxide provided the amount of solvent used does not exceed the amount necessary for extraction. The operator shall provide an affidavit from the manufacturer that proves the need to use sodium hydroxide. Sodium benzoate and potassium sorbate may be used as preservatives for water-extracted aquatic plant products. All other preservatives are prohibited unless listed in Table 4.2 (Column 1 or 2) with the exception that Formulants used in crop production aids are prohibited.

CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)

Aquatic plants and aquatic plant products

Class: CP

Aquatic plant products may be extracted by using the following substances in order of preference: a) substances in Table 4.2 Extractants; b) potassium hydroxide; c) sodium hydroxide provided the amount of solvent used does not exceed the amount necessary for extraction. The operator shall provide an affidavit from the manufacturer that proves the need to use sodium hydroxide. Sodium benzoate and potassium sorbate may be used as preservatives for water-extracted aquatic plant products. All other preservatives are prohibited unless listed in Table 4.2 (Column 1 or 2) with the exception that Formulants used in crop production aids are prohibited. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Arthropod pathogens

Class: CP

See BIOLOGICAL ORGANISMS.

Allowed With Restrictions**Arthropod predators and parasitoids**

Class: CP

See BIOLOGICAL ORGANISMS.

Arthropods

Class: CP

See BIOLOGICAL ORGANISMS.

Ascorbic Acid (Vitamin C)

Class: CT

CGSB Reference: 32.311 Table 4.2 (column 2)

Ash

Class: CF, CT

Ash shall be from plant and animal sources. Ash from burning manure or from burning minerals, coloured paper, plastics or other non-biological substances is prohibited. Ash containing materials that cannot be verified or containing prohibited substances shall not exceed the limits (category C1) for acceptable levels (mg/kg) of arsenic, cadmium, chromium, lead and mercury, as specified in Guidelines for the Beneficial Use of Fertilising Residuals. Shall not cause a build-up of heavy metals or micronutrients in the soil.

CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)

Ash

Class: CP

Ash shall be from plant and animal sources. Ash from burning manure or from burning minerals, coloured paper, plastics or other non-biological substances is prohibited. Ash containing materials that cannot be verified or containing prohibited substances shall not exceed the limits (category C1) for acceptable levels (mg/kg) of arsenic, cadmium, chromium, lead and mercury, as specified in Guidelines for the Beneficial Use of Fertilising Residuals. Shall not cause a build-up of heavy metals or micronutrients in the soil. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Baits for rodent traps

Class: CT

May contain food or substances listed in Table 8.2.

CGSB Reference: 32.311 Table 4.2 (column 2)

Basalt

Class: CF

See MINED MINERALS.

Bentonite

Class: CP

See CLAY.

Bentonite

Class: CF, CT

To be allowed as a mined mineral, the product shall not have undergone any change in its molecular structure through heating, processing, ion exchange or combining with other substances. See also CLAY; MINED MINERALS.

CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)

Class Codes

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids

<p>Biochar Class: CF Produced through pyrolysis of forestry by-products which have not been treated or combined with prohibited substances. Recycled biochar from contaminated remediation sites is prohibited. CGSB Reference: 32.311 Table 4.2 (column 1)</p>	Allowed	<p>Borate (Boric Acid) Class: CP Mined sources of sodium tetraborate and octaborate. Direct contact with organic food or crops is prohibited. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. For structural pest control (example: for ants). For use as a wood preservative. CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</p>	Allowed With Restrictions
<p>Biodegradable Plant Containers Class: CT Biodegradable planting containers (for example pots or cell packs) may be left to decompose in the field if all ingredients are listed in Table 4.2 (column 1). CGSB Reference: 32.311 Table 4.2 (column 2)</p>	Allowed	<p>Borax (Sodium Tetraborate) Class: CF See BORON.</p>	
<p>Biodynamic Preparations for Compost, Soil and Plants Class: CF, CT As described in Appendix 10 of the Demeter Production Standards. CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)</p>	Allowed	<p>Boron Class: CF The following soluble boron products are permitted: a) borate; b) sodium tetraborate (borax and anhydrous); and c) sodium octaborate. May only be used when soil and plant deficiencies are documented by visual symptoms or by testing of soil or plant tissue, or when the need for a preventative application can be documented. See also MICRONUTRIENTS. CGSB Reference: 32.311 Table 4.2 (column 1)</p>	Allowed With Restrictions
<p>Biological Organisms Class: CF Biological organisms (living, dead or as extracts), such as viruses, bacteria, protozoa, phages, fungi, insects and nematodes. Pharmaceuticals derived from or by biological sources, such as natamycin, penicillin and streptomycin, are prohibited even if registered as pesticides. See also MICROORGANISMS AND MICROBIAL PRODUCTS. CGSB Reference: 32.311 Table 4.2 (column 1)</p>	Allowed	<p>Botanical Pesticides Class: CP For use in conjunction with a biorational pest management program. Shall not be the primary method of pest control. The least toxic botanicals shall be used in the least ecologically disruptive way possible. All label restrictions and directions shall be followed, including restrictions concerning crops, livestock, target pests, safety precautions, pre-harvest intervals and worker re-entry. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</p>	Allowed With Restrictions
<p>Biological Organisms Class: CP Biological organisms (living, dead or as extracts), such as viruses, bacteria, protozoa, fungi, insects and nematodes. Pharmaceuticals derived from or by biological sources, such as natamycin, penicillin and streptomycin, are prohibited even if registered as pesticides. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also MICROORGANISMS AND MICROBIAL PRODUCTS. CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</p>	Allowed With Restrictions	<p>Calcium Class: CF Calcium carbonate (calcitic limestone), calcium magnesium carbonate (dolomitic limestone), calcium silicate, and calcium sulphate (gypsum), all from mined sources. Other biological or mineral sources, such as shells from aquatic animals (for example, oyster shell flour), aragonite, eggshell meal and lime from sugar processing. Calcium chloride derived from naturally occurring brines and not chemically treated. Prohibited forms include slaked limestone (calcium hydroxide); quicklime (calcium oxide); calcium sulphate produced using sulphuric acid and calcium products that have been used in controlled atmosphere storage. See also CALCIUM SULPHATE (GYPSUM); MINED MINERALS. CGSB Reference: 32.311 Table 4.2 (column 1)</p>	Allowed
<p>Biotite Class: CF See MINED MINERALS; POTASSIUM.</p>		<p>Calcium Carbonate Class: CF See CALCIUM; LIMESTONE.</p>	
<p>Blood Meal Class: CF Shall be sterilized. CGSB Reference: 32.311 Table 4.2 (column 1)</p>	Allowed	<p>Calcium Chloride Class: CF See CALCIUM.</p>	
<p>Bone Meal Class: CF Shall be guaranteed free of specified risk materials including: the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older; and the distal ileum (portion of the small intestine) of cattle of all ages. CGSB Reference: 32.311 Table 4.2 (column 1)</p>	Allowed		
<p>Borate Class: CF See BORON.</p>			

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Calcium Lignin Sulphonate

Class: CT

See LIGNIN AND LIGNIN SULPHONATES (LIGNOSULPHONATES).

Calcium Polysulphide

Class: CP

See LIME SULPHUR (CALCIUM POLYSULPHIDE).

Calcium Silicate**Allowed**

Class: CT

Mined sources. May not have been previously used in controlled atmosphere storage.

*CGSB Reference: 32.311 Table 4.2 (column 1)***Calcium Sulphate (Gypsum)****Allowed With Restrictions**

Class: CF

Mined sources are allowed; calcium sulphate produced using sulphuric acid is prohibited. For correcting calcium and sulphur deficiencies and soil salinity problems.

*CGSB Reference: 32.311 Table 4.2 (column 1)***Cannery wastes****Allowed**

Class: CF

From organic sources. See also COMPOST FEEDSTOCKS.

*CGSB Reference: 32.311 Table 4.2 (column 1)***Cannery wastes****Allowed With Restrictions**

Class: CF

From non-organic sources. Shall be composted. See also COMPOST FEEDSTOCKS.

*CGSB Reference: 32.311 Table 4.2 (column 1)***Carbon Dioxide****Allowed With Restrictions**

Class: CP

For storage pest control. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

*CGSB Reference: 32.310 Subclause 5.6.2; Table 4.2 (column 2)***Carbon Dioxide****Allowed With Restrictions**

Class: CT

For controlled atmosphere storage. For soil and greenhouse use.

*CGSB Reference: 32.311 Table 4.2 (column 2)***Cardboard****Allowed With Restrictions**

Class: CP, CT

Cardboard shall not be waxed or impregnated with fungicide or prohibited substances. For use as a mulch or as a pest trapping material. See also MULCHES, BIODEGRADABLE BIOBASED FILMS; MULCHES, FROM NEWSPAPER OR PAPER; MULCHES, ORGANIC SOURCES; MULCHES, PLASTIC; MULCHES.

*CGSB Reference: 32.310 Subclause 5.6.1; 32.311 Table 4.2 (column 2)***Cardboard****Allowed With Restrictions**

Class: CF

Cardboard shall not be waxed or impregnated with fungicide or prohibited substances. For use as a composting feedstock. See also COMPOST FEEDSTOCKS.

*CGSB Reference: 32.311 Table 4.2 (column 1)***Chelates****Allowed**

Class: CT

Chelating agents that are listed in Table 4.2 (column 2) are permitted. Examples include Acetic acid; Ascorbic acid; Citric acid; Humates; Lignin and lignin sulphonates (lignosulphonates) and Vinegar. See also ACETIC ACID; ASCORBIC ACID (VITAMIN C); CITRIC ACID; LIGNIN AND LIGNIN SULPHONATES (LIGNOSULPHONATES); VINEGAR.

*CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)***Chlorine Compounds****Allowed With Restrictions**

Class: CT

Includes the following chlorine compounds: calcium hypochlorite, chlorine dioxide, hypochlorous acid generated via electrolyzed water, and sodium hypochlorite. Must not exceed maximum levels for safe drinking water when used in direct contact with organic products and product contact surfaces without a removal event. May be used up to maximum label rates on organic product contact surfaces provided that a removal event has eliminated the substance prior to organic production.

*CGSB Reference: 32.311 Table 7.3; 7.4***Cholecalciferol (Vitamin D₃)****Allowed With Restrictions**

Class: CP

For use outdoors and inside greenhouses for rodent control when methods described in 5.6.1 of CAN/CGSB-32.310 have failed. Prohibited inside organic food processing and food storage facilities.

*CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)***Citric Acid****Allowed**

Class: CT

*CGSB Reference: 32.311 Table 4.2 (column 2)***Clay****Allowed**

Class: CF

Bentonite, perlite and kaolin; as soil amendments or seed pellet additives. See also MINED MINERALS.

*CGSB Reference: 32.311 Table 4.2 (column 1)***Clay****Allowed With Restrictions**

Class: CP

Bentonite, perlite and kaolin. For use as a pest control. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also KAOLIN CLAY.

*CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)***Clove oil****Allowed With Restrictions**

Class: CP

May be used as a pesticide if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. Also permitted for sprout inhibition in potatoes.

*CGSB Reference: 32.311 Table 4.2 (column 2)***Class Codes**

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids

<p>Compost Class: CF Compost produced on the farm is restricted to compost produced on a certified organic farm. Compost from off-farm sources includes every other source, for example: municipal, residential, industrial, or any organic or non-organic farm. See also individual COMPOST listings. See also MICROORGANISMS AND MICROBIAL PRODUCTS; WORM CASTINGS. <i>CGSB Reference: 32.311 Table 4.2 (column 1)</i></p>	Allowed	<p>Compost produced on the farm Class: CF Compost produced on the farm shall conform to the criteria specified in Table 4.2 Compost feedstocks. In addition, if made from animal manures or other likely sources of human pathogens, compost produced on the farm shall: a) reach a temperature of 55°C (130°F) for a period of four consecutive days or more. The compost piles shall be mixed or managed to ensure that all of the feedstock heats up to the required temperature for the minimum time; or b) meet limits for acceptable levels (MPN/g total solids) of human pathogens specified in Guidelines for Compost Quality; or c) be considered as aged or raw manure rather than compost, that is, meeting requirements specified in 5.5.2.5 of CAN/CGSB-32.310. Compost tea shall be made from composts that conform to criteria specified in Table 4.2 Compost produced on the farm; Compost from off-farm sources or Worm castings. Other substances listed in Table 4.2 may be added to compost tea. See also COMPOST categories. <i>CGSB Reference: 32.311 Table 4.2 (column 1)</i></p>	Allowed
<p>Compost Feedstocks Class: CF Acceptable feedstocks include: a) animal manures conforming to criteria specified in 5.5.1 of CAN/CGSB-32.310 and insect frass; b) animals, animal products and by-products (including fishery); c) plants and plants by-products (including forestry and source-separated yard debris, such as grass clippings and leaves), pomaces and cannery wastes; d) soils and minerals that conform to the requirements of CAN/CGSB-32.310 and 32.311; and e) paper yard waste bags which contain coloured ink. When evidence indicates that compost feedstocks could contain a substance prohibited by 1.4 or 1.5 of CAN/CGSB-32.310 known to be potentially persistent in compost, testing of the compost before use is required, or reference to scientific literature which establishes that the specific potential contaminant(s) will degrade during the composting process. The following composting feedstocks are prohibited: sewage sludge; compost starter and feedstocks fortified with substances not included in CAN/CGSB 32.311; leather by-products; glossy paper; waxed cardboard; paper containing coloured ink other than paper yard waste bags; and animals, animal products and animal by-products not guaranteed free of Specified Risk Material (SRM). See Glossary for definition of specified risk material (SRM). See also COMPOST categories. <i>CGSB Reference: 32.310 Subclause 3; 32.311 Table 4.2 (column 1); COR SIC 548.1</i></p>	Allowed	<p>Compost Tea Class: CF Compost tea shall be made from composts that conform to criteria specified in Table 4.2 Compost produced on the farm; Compost from off-farm sources; or Worm castings. Additional ingredients shall be listed in Table 4.2 (column 1). If compost tea is applied directly to the edible parts of plants, the operator shall be able to demonstrate that best practices known to eliminate pathogens during the processing have been used OR that the requirements for raw manure, as specified in 5.5.2.5 of CAN/CGSB-32.310, have been met. See also COMPOST; COMPOST FEEDSTOCKS; COMPOST PRODUCED ON THE FARM; COMPOST OBTAINED FROM OFF-FARM SOURCES; WORM CASTINGS. <i>CGSB Reference: 32.311 Table 4.2 (column 1)</i></p>	Allowed With Restrictions
<p>Compost obtained from off-farm sources Class: CF Compost obtained from off-farm sources shall conform to the criteria specified in Compost feedstocks. If compost is obtained from another farm, feedstock sources shall be documented. Compost obtained from all other sources shall comply to the following: a) shall not exceed the maximum acceptable levels of arsenic, cadmium, chromium, lead and mercury (mg/kg) and foreign matter outlined for unrestricted use compost (Category A), as specified in Guidelines for Compost Quality; b) shall meet criteria for acceptable levels (MPN/g total solids) of human pathogens as specified in Guidelines for Compost Quality; and c) shall not cause heavy metal buildup in soil. See also COMPOST categories. See also MICROORGANISMS AND MICROBIAL PRODUCTS; WORM CASTINGS. <i>CGSB Reference: 32.311 Table 4.2 (column 1)</i></p>	Allowed	<p>Copper (Plant Nutrition) Class: CF The following copper products may be used to correct documented copper deficiencies: copper sulphate, basic copper sulphate, copper oxide and copper oxysulphate. Copper ammonia base, copper ammonium carbonate, copper nitrate and cuprous chloride are prohibited. For use when soil and plant deficiencies are documented by visual symptoms or by testing of soil and/or plant tissue, or when the need for a preventative application can be documented. Shall be used with caution to prevent excessive copper accumulation in the soil. Copper build up in soil may prohibit future use. Visible residue of copper products on harvested crops is prohibited. <i>CGSB Reference: 32.311 Table 4.2 (column 1)</i></p>	Allowed With Restrictions
		<p>Copper (Production Aid) Class: CP Copper sulphate, copper hydroxide, copper octanoate, Bordeaux mix, copper oxychloride and copper oxide. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. For use as a wood preservative, or for controlling pests, including diseases. Shall be used with caution to prevent excessive copper accumulation in the soil. Copper build up in soil may prohibit future use. Visible residue of copper products on harvested crops is prohibited. <i>CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</i></p>	Allowed With Restrictions

Cytokinins

Class: CP

See GROWTH REGULATORS FOR PLANTS.

Diatomaceous Earth**Allowed With Restrictions**

Class: CP

Non-calcined forms. May contain substances listed in Table 4.2 (Column 2). May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Digestate, anaerobic, manure source**Allowed With Restrictions**

Class: CF

Permitted to be used for soil amendment, provided that the following conditions are met: a) the materials added to the digester shall be listed in CAN/CGSB-32.311 Table 4.2 (column 1). If feedstocks are obtained from off-farm sources, the digestate shall comply with the heavy metal restrictions in COMPOST FROM OFF-FARM SOURCES; b) the criteria for raw manure on land application specified in 5.5.2 of CAN/CGSB-32.310 shall be met if the digestate feedstocks include manure; c) it is permitted to use anaerobic digestate as a compost feedstock if it is added to other substances which are then composted. Shall be incorporated into the soil at least 90 days before the harvest of crops that do not come into contact with soil and are intended for human consumption; or incorporated into the soil at least 120 days before the harvest of crops that have edible parts that come into direct contact with the surface of the soil or with soil particles. See also COMPOST FEEDSTOCKS; DIGESTATE, ANAEROBIC, NON-MANURE SOURCE.

CGSB Reference: 32.311 Table 4.2 (column 1)

Digestate, anaerobic, non-manure source**Allowed**

Class: CF

Permitted to be used for soil amendment, provided that the following conditions are met: a) the materials added to the digester shall be listed in CAN/CGSB-32.311 Table 4.2 (column 1). If feedstocks are obtained from off-farm sources, the digestate shall comply with the heavy metal restrictions in CAN/CGSB-32.311 Table 4.2 COMPOST FROM OFF-FARM SOURCES; b) the criteria for raw manure land application specified in 5.5.2 of CAN/CGSB-32.310 shall be met if the digestate feedstocks include manure; c) it is permitted to use anaerobic digestate as a compost feedstock if it is added to other substances which are then composted. See also COMPOST FEEDSTOCKS; DIGESTATE, ANAEROBIC, MANURE SOURCE.

CGSB Reference: 32.311 Table 4.2 (column 1)

Dolomite

Class: CF

See LIMESTONE; MINED MINERALS; MAGNESIUM.

Dormant Oils

Class: CP

For use as a dormant spray on woody plants. Shall not be used as a dust suppressant. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Allowed With Restrictions**Dust Suppressants****Allowed**

Class: CF, CT

Vegetable oils, organic molasses or substances listed in Table 4.2 (Column 1 or 2) (for example: Lignin and lignin sulphonates (lignosulphonates)) are permitted, excluding Formulants used in crop production aids. Petroleum products are prohibited.

CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)

Enzymes**Allowed**

Class: CF, CT

Derived from plants, animals or microorganisms through the action of microorganisms.

CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)

Epsom Salts

Class: CF

See MAGNESIUM; MAGNESIUM SULPHATE.

Extractants**Allowed**

Class: CT

The following may be used as extractants: a) water; b) culinary steam, as described in 8.1.2 b) of CAN/CGSB-32.310; c) fats and oils, such as cocoa butter, vegetable oils, lanolin and animal fats, and alcohols other than isopropyl alcohol; d) supercritical CO₂; and e) substances listed in Table 4.2 (Column 1 or 2) except for Formulants used in crop production aids.

CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)

Feather Meal**Allowed**

Class: CF

CGSB Reference: 32.311 Table 4.2 (column 1)

Feldspar

Class: CF

See MINED MINERALS.

Fermentation Products

Class: CF

See MICROORGANISMS AND MICROBIAL PRODUCTS.

Ferric and Ferrous Compounds

Class: CF

See IRON.

Ferric phosphate (iron orthophosphate, iron phosphate)**Allowed With Restrictions**

Class: CP

May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. For use as a molluscicide (for slug and snail control). Shall be used in such a manner that runoff into water bodies is prevented. Contact with crops is prohibited.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Class Codes

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids

Fertilizers and Soil Amendments, Blended **Allowed**

Class: CF

Must be composed entirely of substances on CAN/CGSB-32.311, Organic Production Systems - Permitted Substances List, allowed for use in soil amendments.

CGSB Reference: 32.311 Table 4.2 (column 1)

Fertilizers and Soil Amendments, Blended **Allowed With Restrictions**

Class: CF

Must be composed entirely of substances appearing on CAN/CGSB-32.311, Organic Production Systems - Permitted Substances List, allowed for use in soil amendments. Contains one or more substances with a source or use restriction. Refer to specific ingredient categories for applicable use restrictions.

CGSB Reference: 32.311 Table 4.2 (column 1)

Fibre Row Covers **Allowed With Restrictions**

Class: CT

Shall not be incorporated into the soil or left in the field to decompose. Shall be removed at the end of the growing season.

CGSB Reference: 32.311 Table 4.2 (column 2)

Fish Emulsions or Solubles

Class: CF

See FISH PRODUCTS.

Fish Farm Wastes

Class: CF

See FISH PRODUCTS.

Fish Hydrolysate

Class: CF

See FISH PRODUCTS.

Fish Meal, Powder

Class: CF

See FISH PRODUCTS.

Fish Products **Allowed**

Class: CF

The following fish products are permitted: fish meal; fish powder; and hydrolysate, emulsions and solubles. Fish farm wastes shall be composted. Only substances listed in Column 1 or 2 of Table 4.2 can be added to fish products with the exception that the addition of Formulants used in crop production aids is prohibited. Chemical treatment is prohibited, with the exception of the following substances which are in preferential order: a) vinegar; b) citric acid; c) phosphoric acid; or d) sulphuric acid. The amount of acid used shall not exceed the minimum needed to stabilize the product.

CGSB Reference: 32.311 Table 4.2 (column 1)

Formulants Used in Crop Production Aids **Allowed With Restrictions**

Class: CT

Only formulants classified as List 4A or 4B by the Pest Management Regulatory Agency (PMRA) or derived from biological or mineral sources may be used with substances in Table 4.2 (Column 2).

Formulants classified as List 3 by PMRA may be used with passive pheromone dispensers. Formulants classified as List 4A, 4B or 3 by PMRA are not subject to 1.4 or 1.5 of CAN/CGSB-32.310. Formulants classified as List 1 or 2 by PMRA are prohibited. Only for use with substances listed in 32.311 Table 4.2 (column 2). See also FORMULANTS USED IN SOIL AMENDMENTS.

CGSB Reference: 32.311 Table 4.2 (column 2)

Formulants Used in Soil Amendments **Allowed**

Class: CF

Formulants used in soil amendments shall be derived from biological or mineral sources unless a substance annotation allows the use of a specified synthetic formulant. For example, see also AQUATIC PLANTS AND PLANT PRODUCTS; FISH PRODUCTS; HUMATES, HUMIC ACID AND FULVIC ACID. See also FORMULANTS USED IN CROP PRODUCTION AIDS.

CGSB Reference: 32.311 Table 4.2 (column 1)

Formulants, PMRA List 1 and 2 **Prohibited**

Class: CT

Formulants classified as List 1 or 2 by PMRA are prohibited.

CGSB Reference: 32.311 Table 4.2 (column 2)

Formulants, PMRA List 3 **Allowed With Restrictions**

Class: CT

Formulants classified as List 3 by PMRA are not subject to 1.4 or 1.5 of CAN/CGSB-32.310. For use as a formulant with passive pheromone dispensers.

CGSB Reference: 32.311 Table 4.2 (column 2)

Formulants, PMRA List 4A and 4B **Allowed With Restrictions**

Class: CT

Includes formulants classified as List 4A or 4B by the Pest Management Regulatory Agency (PMRA) and non-synthetic substances only. Formulants classified as List 4A or 4B by PMRA are not subject to 1.4 or 1.5 of CAN/CGSB-32.310. For use as a formulant with substances listed in CAN/CGSB-32.311 Table 4.2 (column 2). See also FORMULANTS, PMRA LIST 3.

CGSB Reference: 32.311 Table 4.2 (column 2)

Fungicides **Allowed With Restrictions**

Class: CP

Must be composed of materials appearing on CAN/CGSB-32.311 Table 4.2 (column 2) as permitted for this use. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

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Gibberellic Acid

Class: CP

Must be derived from terrestrial or aquatic plants, or produced by microorganisms. For use as a plant growth regulator. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also EXTRACTANTS.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Granite Dust

Class: CF

See MINED MINERALS.

Greensand (glauconite)

Class: CF

See MINED MINERALS.

Growth Regulators for Plants

Class: CP

Plant hormones, such as gibberellic acid, indoleacetic acid and cytokinins, derived from terrestrial or aquatic plants or produced by microorganisms are permitted. For use as a plant growth regulator. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also GIBBERELIC ACID.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Guano

Class: CF

Shall be decomposed, dried deposits from wild bats or birds. Domesticated fowl excrement is considered to be manure, not guano.

CGSB Reference: 32.311 Table 4.2 (column 1)

Gypsum (calcium sulphate)

Class: CF

See CALCIUM SULPHATE (GYPSUM).

Herbicides

Class: CP

Must be composed of materials appearing on CAN/CGSB-32.311 Table 4.2 (column 2) as permitted for this use. For use as an herbicide. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Homeopathic Preparations

Class: CT

CGSB Reference: 32.311 Table 4.2 (column 2)

Homeopathic Preparations

Class: CP

May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Class Codes

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids

Hormones

Class: CP

See GROWTH REGULATORS FOR PLANTS.

Humates, humic acid and fulvic acid

Class: CF

Permitted if mined; produced through microbial activity; extracted by physical processes; or with: a) CAN/CGSB-32.311 Table 4.2 Extractants; or b) potassium hydroxide - potassium hydroxide levels used in the extraction process shall not exceed the amount required for extraction. Levels (mg/kg) of arsenic, cadmium, chromium, lead and mercury shall not exceed the limits (category C1) specified in Guidelines for the Beneficial Use of Fertilising Residuals. Shall not cause a build-up of heavy metals or micronutrients in the soil.

CGSB Reference: 32.311 Table 4.2 (column 1)

Humic Acid Starting Materials

Class: CF

Includes dry products containing humates and permitted extractant. Levels (mg/kg) of arsenic, cadmium, chromium, lead and mercury shall not exceed the limits (category C1) specified in Guidelines for the Beneficial Use of Fertilising Residuals. Must be extracted with the addition of water prior to use. Shall not cause a build-up of heavy metals or micronutrients in the soil.

CGSB Reference: 32.311 Table 4.2 (column 1)

Hydrated Lime (Calcium Hydroxide)

Class: CP

For plant disease control. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Hydrogen Peroxide

Class: CP

May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Indoleacetic acid

Class: CP

See GROWTH REGULATORS FOR PLANTS.

Insect frass

Class: CF

From non-organic sources. Insect frass shall be considered as animal manure, shall be from organic insects if commercially available, and comply with 5.5.2 of CAN/CGSB-32.310. Soil amendments including manure shall be applied to land in accordance with good nutrient management practices. Shall be incorporated into the soil at least 90 days before the harvest of crops that do not come into contact with soil and are intended for human consumption; or incorporated into the soil at least 120 days before the harvest of crops that have edible parts that come into direct contact with the surface of the soil or with soil particles. See also MANURE, RAW, UNCOMPOSTED.

CGSB Reference: 32.310 Subclause 5.5.2; 32.311 Table 4.2 (column 1);
COR SIC 548.1

<p>Insect frass, processed Allowed Class: CF From non-organic sources. Insect frass treated by mechanical and/or physical (including heat) methods is permitted. Additional ingredients shall be listed in Table 4.2 (Column 1). The operator shall be able to demonstrate that best practices known to eliminate human pathogens during the treatment have been used or that the requirements in 5.5.2.5 of CAN/CGSB-32.310 have been met. See also MANURE, ANIMAL, PROCESSED; INSECT FRASS. CGSB Reference: 32.311 Table 4.2 (column 1); COR SIC 548.1</p>	<p>Lactic Acid Allowed Class: CF Lactic acid produced by fermentation and extraction is permitted. Extraction processes must use permitted extractants. Requirements with regard to substrates/growth media must be met. Chemical processes used to purify and/or extract substances are permitted as long as they do not create new molecules or involve processes specifically prohibited by CAN/CGSB-32.310 subclause 3.65. See also EXTRACTANTS; MICROORGANISMS AND MICROBIAL PRODUCTS. CGSB Reference: 32.311 Table 4.2 (column 1)</p>
<p>Inoculants Class: CF See MICROORGANISMS AND MICROBIAL PRODUCTS.</p>	<p>Langbeinite Class: CF See MINED MINERALS; MAGNESIUM.</p>
<p>Invertebrates Allowed Class: CF, CP, CT Worms, insects (including sterile insects), nematodes, arthropods and other invertebrates. See also WORM CASTINGS; STERILE INSECTS. CGSB Reference: 32.310 Subclause 5.6.1; 32.311 Table 4.2 (column 1); 4.2 (column 2)</p>	<p>Leaf Mould Allowed Class: CF CGSB Reference: 32.311 Table 4.2 (column 1)</p>
<p>Iron Allowed With Restrictions Class: CF The following sources of iron are permitted: ferric oxide, iron citrate, iron sulphate (ferric or ferrous) or iron tartrate. For use when soil and plant deficiencies are documented by visual symptoms or by testing of soil and/or plant tissue, or when the need for a preventative application can be documented. See also MICRONUTRIENTS. CGSB Reference: 32.311 Table 4.2 (column 1)</p>	<p>Lignin and Lignin Sulphonates (Lignosulphonates) Allowed With Restrictions Class: CT Ammonium lignosulphonate is prohibited. Other lignin forms such as lignosulphonic acid, calcium lignosulphonate, magnesium lignosulphonate, sodium lignin and sodium lignosulphonate are permitted. For use as a chelating agent. For use as a dust suppressant. For use as a formulant. CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)</p>
<p>Iron Sulphates Class: CF See IRON.</p>	<p>Lime Sulphur (Calcium Polysulphide) Allowed With Restrictions Class: CP For use as a fungicide, an insecticide and an acaricide (mite control) on plants. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</p>
<p>Kaolin Clay Allowed Class: CT May be calcined. Shall not be processed or fortified with substances unless listed in Table 4.2 (Column 2). CGSB Reference: 32.311 Table 4.2 (column 2)</p>	<p>Limestone Allowed Class: CF Mined magnesium and calcium carbonates. See also CALCIUM. CGSB Reference: 32.311 Table 4.2 (column 1)</p>
<p>Kaolin Clay Allowed With Restrictions Class: CP May be calcined. Shall not be processed or fortified with substances unless listed in CAN/CGSB-32.311 Table 4.2 (Column 2). May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</p>	<p>Magnesium Allowed Class: CF The following sources are permitted: a) mined magnesium rock; b) magnesium chloride derived from natural brines and not chemically treated; c) mined calcium magnesium carbonate (dolomitic limestone) that has not been slaked; d) potassium magnesium sulphate (langbeinite). See also MAGNESIUM CARBONATE; LIMESTONE; MAGNESIUM SULPHATE. CGSB Reference: 32.311 Table 4.2 (column 1)</p>
<p>Kelp and kelp products Class: CF See AQUATIC PLANTS AND AQUATIC PLANT PRODUCTS.</p>	<p>Magnesium Carbonate Allowed Class: CF Mined sources. See also LIMESTONE; MAGNESIUM. CGSB Reference: 32.311 Table 4.2 (column 1)</p>
<p>Kieserite Class: CF See MAGNESIUM; MAGNESIUM SULPHATE.</p>	<p>Magnesium Chloride Class: CF, CT See MAGNESIUM.</p>

Magnesium Rock

Class: CF

See MAGNESIUM CARBONATE; MINED MINERALS; MAGNESIUM.

Magnesium Sulphate

Class: CF

Magnesium sulphate ($MgSO_4$), from kieserite or Epsom salts. May only be used when soil and plant deficiencies are documented by visual symptoms or by testing of soil or plant tissue, or when the need for a preventative application can be documented. See also MAGNESIUM.

*CGSB Reference: 32.311 Table 4.2 (column 1)***Manganese**

Class: CF

Manganous oxide and manganese sulphate are permitted. May be used to correct documented micronutrient deficiencies. See also MICRONUTRIENTS.

*CGSB Reference: 32.311 Table 4.2 (column 1)***Manure, animal, processed**

Class: CF

Manure treated by mechanical and/or physical (including heat) methods are permitted. Additional ingredients shall be listed in Table 4.2 (Column 1). Manure sources shall conform to requirements specified in 5.5.1 of CAN/CGSB-32.310. The operator shall be able to demonstrate that best practices known to eliminate human pathogens during the treatment have been used or that the requirements in 5.5.2.5 of CAN/CGSB-32.310 have been met. See also MANURE, RAW, UNCOMPOSTED; MANURE, COMPOSTED.

*CGSB Reference: 32.311 Table 4.2 (column 1)***Manure, composted**

Class: CF

See COMPOST.

Manure, raw, uncomposted

Class: CF

From non-organic sources. See 5.5 of CAN/CGSB-32.310. May be used when organic manure is not commercially available, provided that: a) the non-organic source is not a fully caged system in which livestock cannot turn 360°; and b) livestock is not permanently kept in the dark; and c) the source and quantity of manure, type of livestock, and evaluation of the criteria in CAN/CGSB-32.310 5.5.1.1 a) and 5.5.1.1 b) shall be recorded. Soil amendments including manure shall be applied to land in accordance with good nutrient management practices. Shall be incorporated into the soil at least 90 days before the harvest of crops that do not come into contact with soil and are intended for human consumption; or incorporated into the soil at least 120 days before the harvest of crops that have edible parts that come into direct contact with the surface of the soil or with soil particles. See also COMPOST; MANURE, ANIMAL, PROCESSED.

*CGSB Reference: 32.310 Subclause 5.5; 32.311 Table 4.2 (column 1); COR SIC 438***Manure, raw, uncomposted**

Class: CF

From organic sources. See clause 5.5 of CAN/CGSB-32.310. Soil amendments including manure shall be applied to land in accordance with good nutrient management practices. On-farm nutrient cycling is an important principle of organic production. The organic matter produced on the operation shall be the basis of the nutrient cycling program. Shall be incorporated into the soil at least 90 days before the harvest of crops that do not come into contact with soil and are intended for human consumption; or incorporated into the soil at least 120 days before the harvest of crops that have edible parts that come into direct contact with the surface of the soil or with soil particles.

*CGSB Reference: 32.310 Subclause 5.5; 6.1; 32.311 Table 4.2 (column 1); COR SIC 438***Manure, raw, uncomposted, from offsite sources**

Class: CF

See clause 5.5 of CAN/CGSB-32.310. Soil amendments including manure shall be applied to land in accordance with good nutrient management practices. Animal manure, whether from organic animals or not, produced on the farm shall be used first. On-farm nutrient cycling is an important principle of organic production. The organic matter produced on the operation shall be the basis of the nutrient cycling program. OMRI does not review or list manure produced on the organic operation. Shall be incorporated into the soil at least 90 days before the harvest of crops that do not come into contact with soil and are intended for human consumption; or incorporated into the soil at least 120 days before the harvest of crops that have edible parts that come into direct contact with the surface of the soil or with soil particles.

*CGSB Reference: 32.310 Subclause 5.5; 32.311 Table 4.2 (column 1); COR SIC 438***Meat Meal**

Class: CF

Shall be processed by drying, heat sterilization or composted.

*CGSB Reference: 32.311 Table 4.2 (column 1)***Mica**

Class: CF

See MINED MINERALS; POTASSIUM.

Micronutrients

Class: CF

Plant micronutrients (trace elements) are Iron, Manganese, Zinc, Copper, Molybdenum, Boron, Chlorine and Silicon. Chelation with substances listed under Table 4.2 Chelates is permitted. EDTA, DTPA, EDDHA, nitrate and ammonium forms of micronutrients are prohibited. See specific annotations for Boron; Silicon; Copper; Iron; Manganese; Molybdenum and Zinc in Table 4.2. For use when soil and plant deficiencies are documented by visual symptoms or by testing of soil and/or plant tissue, or when the need for a preventative application can be documented. See also BORON; MANGANESE; MOLYBDENUM; ZINC; CHELATES; IRON; COPPER (PLANT NUTRITION).

*CGSB Reference: 32.311 Table 4.2 (column 1)***Allowed With Restrictions****Allowed****Allowed****Allowed With Restrictions****Class Codes**

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids

Microorganisms and Microbial Products	Allowed With Restrictions	Molasses	Allowed
Class: CP		Class: CF	
Microorganisms, such as viruses, bacteria, protozoa, phages, and fungi, are permitted living, dead or as extracts. Microbial products may contain substances in Table 4.2 (Column 2). Examples include the following: rhizobium bacteria; mycorrhizal fungi; azolla; yeast; <i>Bacillus thuringiensis</i> ; virus and virus sprays (e.g., granulosis); and spinosad. Microbial soil amendments derived from substances that cannot be verified or derived from materials not listed in Table 4.2 (Column 2), may be used with the exception of municipal sewage sludge, which is prohibited. Ionizing radiation is permitted for use on a peat moss carrier before the addition of microbial inoculants. Radiation is otherwise prohibited. Pharmaceuticals derived from biological sources, such as natamycin, penicillin and streptomycin, are prohibited even if registered as pesticides. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.		From organic sources. Non-organic molasses is prohibited.	
		CGSB Reference: 32.311 Table 4.2 (column 1)	
		Molybdenum	Allowed With Restrictions
		Class: CF	
		May be used to correct documented micronutrient deficiencies. See also MICRONUTRIENTS.	
		CGSB Reference: 32.311 Table 4.2 (column 1)	
		Mulches	Prohibited
		Class: CP, CT	
		Prohibited mulch material includes, but is not limited to, polyvinyl chloride, glossy paper and paper with coloured ink, sawdust, wood chips, bark and shavings that is treated or processed with Formulants used in crop production aids or with substances, such as herbicides, preservatives and glues, not listed in CAN/CGSB-32.311 Table 4.2 (Column 1 or 2).	
		CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)	
		Mulches, biodegradable biobased films	Allowed
		Class: CP, CT	
		Biodegradable mulches: 100% of biodegradable mulch films shall be derived from bio-based sources. Formulants or ingredients shall be listed in Table 4.2 (Column 1 or 2). Biodegradable polymers and Carbon Black from GE or petroleum sources are not permitted. See also CARDBOARD; MULCHES, FROM NEWSPAPER OR PAPER; MULCHES, ORGANIC SOURCES; MULCHES, PLASTIC; MULCHES.	
		CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)	
		Mulches, from newspaper or paper	Allowed
		Class: CP, CT	
		Newspaper and paper mulch are permitted; glossy paper and coloured ink are prohibited. See also CARDBOARD; MULCHES, BIODEGRADABLE BIOBASED FILMS; MULCHES, ORGANIC SOURCES; MULCHES, PLASTIC; MULCHES.	
		CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)	
		Mulches, non-organic sources	Allowed With Restrictions
		Class: CP, CT	
		From non-organic sources. Biological materials from non-organic sources are permitted. Non-genetically engineered sources may be used provided that prohibited substances have not been used on these materials for at least 60 days before harvest. May only be used if organic sources are not commercially available. See also CARDBOARD; MULCHES, BIODEGRADABLE BIOBASED FILMS; MULCHES, FROM NEWSPAPER OR PAPER; MULCHES, ORGANIC SOURCES; MULCHES, PLASTIC; MULCHES.	
		CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)	
		Mulches, non-organic sources	Allowed With Restrictions
		Class: CF	
		Contains one or more substances with a source or use restriction. Biological materials from non-organic sources are permitted. Non-genetically engineered sources may be used provided that prohibited substances have not been used on these materials for at least 60 days before harvest. Refer to specific ingredient categories for applicable use restrictions. May only be used if organic sources are not commercially available.	
		CGSB Reference: 32.311 Table 4.2 (column 1)	
Microorganisms and Microbial Products	Allowed With Restrictions		
Class: CF			
Microorganisms, such as viruses, bacteria, protozoa, phages, and fungi, are permitted living, dead or as extracts. Microbial products may contain substances in Table 4.2 (Column 1). Examples include the following: rhizobium bacteria; mycorrhizal fungi; azolla; yeast; <i>Bacillus thuringiensis</i> ; virus and virus sprays (e.g., granulosis); and spinosad. Microbial fertilizers or microbial soil amendments derived from substances that cannot be verified or derived from materials not listed in Table 4.2 (Column 1), may be used with the exception of municipal sewage sludge, which is prohibited. Microbial fertilizers shall not exceed the limits (category C1) for acceptable levels (mg/kg) of arsenic, cadmium, chromium, lead and mercury, as specified in Guidelines for the Beneficial Use of Fertilising Residuals. Ionizing radiation is permitted for use on peat moss carrier, before the addition of microbial inoculants. Radiation is otherwise prohibited. Pharmaceuticals derived from biological sources, such as natamycin, penicillin and streptomycin, are prohibited even if registered pesticides. Shall not cause a build-up of heavy metals or micronutrients in the soil.			
		CGSB Reference: 32.311 Table 4.2 (column 1)	
Milk and Milk By-Products	Allowed		
Class: CF			
		CGSB Reference: 32.311 Table 4.2 (column 1)	
Mined Minerals	Allowed		
Class: CF			
Mined minerals include basalt, pumice, sand, feldspar, mica, granite dust and other unprocessed rock dust. Minerals extracted from seawater are permitted. To be allowed as a mined mineral, the product shall not have undergone any change in its molecular structure through heating, processing, ion exchange or combining with other substances. Sodium nitrate and rock dust that has been mixed with petroleum products, such as those from stone engraving, are prohibited. See annotations for specific minerals in Table 4.2 (column 1).			
		CGSB Reference: 32.311 Table 4.2 (column 1)	

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Mulches, organic sources Class: CT From organic sources. Biological materials from organic sources are permitted (e.g., straw, leaves, grass clippings, hay, wool or untreated burlap). See also CARDBOARD; MULCHES, NON-ORGANIC SOURCES; MULCHES, PLASTIC. <i>CGSB Reference: 32.310 Subclause 5.6.1; 32.311 Table 4.2 (column 1); 4.2 (column 2)</i>	Allowed	Peracetic Acid/Peroxyacetic Acid Class: CP Formulations of peracetic acid may include unreacted residual reagents and catalysts, such as hydrogen peroxide, acetic acid and sulphuric acid. For use in: a) pest control; and b) disinfecting and cleaning seeds and plant stock. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. <i>CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</i>	Allowed With Restrictions
Mulches, plastic Class: CT Use of polyvinyl chloride as plastic mulch or row cover is prohibited. Shall not be incorporated into the soil or left in the field to decompose. See also CARDBOARD; MULCHES, ORGANIC SOURCES. <i>CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)</i>	Allowed With Restrictions	Perlite Class: CF See CLAY; MINED MINERALS.	
Mushroom Compost Class: CF See COMPOST.		Pheromones and other semiochemicals Class: CP All sources are permitted. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. For use as a pest control. <i>CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</i>	Allowed With Restrictions
Nitrogen Class: CT For controlled atmosphere storage. <i>CGSB Reference: 32.311 Table 4.2 (column 2); 8.3</i>	Allowed With Restrictions	Phosphate Rock Class: CF May be fortified or processed with substances listed in Table 4.2 (column 1). Cadmium shall not exceed 90 mg/kg P ₂ O ₅ . <i>CGSB Reference: 32.311 Table 4.2 (column 1)</i>	Allowed
Oilseed Meals Class: CF From organic sources. Shall be organic if commercially available. <i>CGSB Reference: 32.311 Table 4.2 (column 1)</i>	Allowed	Plant extracts, oils and preparations Class: CP Permitted extractants include fats and oils (such as cocoa butter, lanolin and animal fats); alcohols; water; or substances listed on Table 4.2 (Column 2) other than Formulants used in crop production aids. Extraction with other solvents is prohibited except with, in order of preference: a) potassium hydroxide; b) sodium hydroxide; provided the amount of solvent used does not exceed the amount necessary for extraction. The operator shall provide an affidavit from the manufacturer that proves the need to use sodium hydroxide. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also CLOVE OIL. <i>CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</i>	Allowed With Restrictions
Oilseed Meals Class: CF From non-organic sources. May only be used if organic sources are not commercially available. <i>CGSB Reference: 32.311 Table 4.2 (column 1)</i>	Allowed With Restrictions	Oxygen Class: CT For controlled atmosphere storage. <i>CGSB Reference: 32.311 Table 4.2 (column 2)</i>	
Oyster Shell Lime Class: CF See CALCIUM; LIMESTONE.		Plant Protectants Class: CT Mineral and biological substances including, but not limited to: calcium carbonate (from chalk, limestone, etc.); diatomaceous earth; kaolin clay; pine oil; pine resin; and yucca. Permitted to protect plants from harsh environmental conditions (such as frost and sunburn), infection, the build-up of dirt on leaf surfaces, or injury by an invertebrate pest or disease. <i>CGSB Reference: 32.311 Table 4.2 (column 2)</i>	Allowed With Restrictions
Peat Moss Class: CF <i>CGSB Reference: 32.311 Table 4.2 (column 1)</i>	Allowed		

Class Codes

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids

Plants and Plant By-products**Allowed**

Class: CF

Includes plant preparations of aquatic or terrestrial plants or parts of plants, such as cover crops, green manures, crop wastes, hay, leaves and straw. Parts of plants used as soil amendments and foliar feeds are permitted. Wastes from crops that have been treated or produced with prohibited substances are permitted as compost feedstocks. Sawdust, wood chips and shavings shall be obtained or derived from wood that has not been treated with paint or fortified or processed with synthetic chemicals such as herbicides, preservatives or glues. Prohibited substances include sawdust, wood chips, bark and shavings that are treated or processed with Formulants used in crop production aids or with substances, such as herbicides, preservatives and glues, not listed in Table 4.2 (column 1 or 2). See also EXTRACTANTS.

CGSB Reference: 32.311 Table 4.2 (column 1)

Plastic for row covers and solarization**Allowed With Restrictions**

Class: CT

Use of polyvinyl chloride as plastic mulch or row cover is prohibited. Shall not be incorporated into the soil or left in the field to decompose. See also MULCHES, PLASTIC.

CGSB Reference: 32.311 Table 4.2 (column 2)

Pomaces**Allowed**

Class: CF

Feedstocks shall be from organically grown fruits or vegetables. Non-organic pomaces shall be composted. See also COMPOST FEEDSTOCKS.

CGSB Reference: 32.311 Table 4.2 (column 1)

Potassium**Allowed**

Class: CF

The following potassium sources are permitted: a) mined potassium magnesium sulphate (langbeinite) and mined potassium magnesium chlorides (sylvinite and kainite); b) potassium rock powder - includes basalt, biotite, mica, feldspar, granite, glauconite and greensand; c) potassium chloride - muriate of potash or rock potash; d) potassium sulphate - shall be produced by evaporating brines from seabed deposits or combining mined minerals using ion exchange. Potassium sulphate made using sulphuric acid as a reactant is prohibited. See also POTASSIUM CHLORIDE.

CGSB Reference: 32.311 Table 4.2 (column 1)

Potassium Bicarbonate**Allowed With Restrictions**

Class: CP

For pest and disease control for crops grown in greenhouses and other structures, and for other crops. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Potassium Chloride**Allowed With Restrictions**

Class: CF

Muriate of potash and rock potash. Shall not cause salt buildup in soil through repeated application. See also POTASSIUM.

CGSB Reference: 32.311 Table 4.2 (column 1)

Potassium Rock Powders

Class: CF

See MINED MINERALS; POTASSIUM.

Potassium Sulphate

Class: CF

See MINED MINERALS; POTASSIUM.

Potassium Sulphate Magnesia

Class: CF

See MINED MINERALS; POTASSIUM.

Pumice

Class: CF

See MINED MINERALS.

Pyrethrum**Allowed With Restrictions**

Class: CP

May be combined with acceptable formulants listed in Table 4.2 Formulants used in crop production aids. For use in conjunction with a biorational pest management program. Shall not be the primary method of pest control. The least toxic botanicals shall be used in the least ecologically disruptive way possible. All label restrictions and directions shall be followed, including restrictions concerning crops, livestock, target pests, safety precautions, pre-harvest intervals and worker re-entry. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also BOTANICAL PESTICIDES.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Quicklime (Calcium Oxide)**Allowed With Restrictions**

Class: CP

Shall not be used as a fertilizer or as a soil amendment. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.311 Table 4.2 (column 2)

Repellents**Allowed With Restrictions**

Class: CP

Shall be derived from biological sources, such as sterilized blood meal, rotten eggs, hair or predator scents. May contain substances listed in Table 4.2 column 2. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Rock Dust

Class: CF

See MINED MINERALS.

Rotenone

Class: CP

Rotenone is a substance that qualifies as a botanical pesticide. However, in countries such as Canada, where rotenone products are no longer registered for agricultural use, rotenone cannot be used for organic production. See BOTANICAL PESTICIDES.

CGSB Reference: COR SIC 308

<p>Salt Class: CP Sodium chloride, calcium chloride, or potassium chloride. Shall be mined or derived from sources of natural brine; the effluent from ion exchange water softener regeneration may also be used. For use as a pest control. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. <i>CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</i></p>	<p>Allowed With Restrictions</p>	<p>Silicon, Silica and Silicates Class: CP Silicon products from mined sources such as diatomaceous earth, calcium silicate from wollastonite, or silicon dioxide (quartz). Allowed sources also include sodium and potassium silicates. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also DIATOMACEOUS EARTH. <i>CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</i></p>	<p>Allowed With Restrictions</p>
<p>Sand Class: CF See MINED MINERALS.</p>		<p>Soaps Class: CP Soaps (including insecticidal soaps) shall consist of fatty acids derived from animal or vegetable oils. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. <i>CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</i></p>	<p>Allowed With Restrictions</p>
<p>Seaweed and Seaweed Products Class: CF, CP, CT See AQUATIC PLANTS AND AQUATIC PLANT PRODUCTS.</p>		<p>Soaps, Ammonium Class: CP For use as a large animal repellent. Direct contact with organic food or crops is prohibited. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. <i>CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</i></p>	<p>Allowed With Restrictions</p>
<p>Seed Treatments Class: CT Microbial products, kelp, yucca, gypsum, clays and botanicals. May contain substances listed in Table 4.2 (Column 1 or 2) or Table 7.3. See also PERACETIC ACID/PEROXYACETIC ACID. <i>CGSB Reference: 32.310 Subclause 5.3.2; 32.311 Table 4.2 (column 1); 4.2 (column 2)</i></p>	<p>Allowed</p>	<p>Sodium Bicarbonate Class: CP For pest and disease control for crops grown in greenhouses and other structures, and for other crops. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. <i>CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)</i></p>	<p>Allowed With Restrictions</p>
<p>Seed Treatments Class: CP Microbial products, kelp, yucca, gypsum, clays and botanicals. May contain substances listed in Table 4.2 (Column 1 or 2) or Table 7.3. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also PERACETIC ACID/PEROXYACETIC ACID. <i>CGSB Reference: 32.310 Subclause 5.6.2; 5.3.2; 32.311 Table 4.2 (column 2)</i></p>	<p>Allowed With Restrictions</p>	<p>Soil Class: CF From organic sources. Shall comply with restrictions specified in 5.1.2 of CAN/CGSB-32.310. Soil is defined in Clause 3 of CAN/CGSB-32.310 as: mixture of minerals, organic matter and living organisms. <i>CGSB Reference: 32.311 Table 4.2 (column 1)</i></p>	<p>Allowed</p>
<p>Shell from aquatic animals Class: CF, CT Includes chitin. <i>CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)</i></p>	<p>Allowed</p>	<p>Sphagnum Moss Class: CF May contain wetting agents listed in Table 4.2 Surfactants. <i>CGSB Reference: 32.311 Table 4.2 (column 1)</i></p>	<p>Allowed</p>
<p>Shell from aquatic animals Class: CP Includes chitin. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. <i>CGSB Reference: 32.311 Table 4.2 (column 2)</i></p>	<p>Allowed With Restrictions</p>	<p>Spinosa Class: CP Derived from the bacterium <i>Saccharopolyspora spinosa</i>. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also MICROORGANISMS AND MICROBIAL PRODUCTS. <i>CGSB Reference: 32.311 Table 4.2 (column 2)</i></p>	<p>Allowed With Restrictions</p>
<p>Silicon, Silica and Silicates Class: CF, CT Silicon products from mined sources such as diatomaceous earth, calcium silicate from wollastonite, or silicon dioxide (quartz). Sodium and potassium silicates are only allowed for crop protection. See also MINED MINERALS. <i>CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)</i></p>	<p>Allowed</p>	<p>Sterile Insects Class: CP See BIOLOGICAL ORGANISMS; INVERTEBRATES.</p>	

Class Codes

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids

Sticky traps Class: CP Within the sugar bush, substances listed in Table 4.2 (column 2) of CAN/CGSB-32.311, are permitted for disease and insect control. Within preparation facilities, mechanical and sticky traps are permitted for rodents and other destructive pests, as are natural repellents listed in Table 8.2 of CAN/CGSB-32.311. If an infestation occurs, pests may be hunted. Poisons of any kind are prohibited. For rodents and other destructive pests within the sugar bush and within preparation facilities (maple products production). CGSB Reference: 32.310 Subclause 7.2.9.5; 32.311 Table 4.2 (column 2)	Allowed With Restrictions	Sulphur, elemental Class: CF Both mined and reclaimed sources of elemental sulphur are permitted. CGSB Reference: 32.311 Table 4.2 (column 1)	Allowed
Stillage and stillage extract Class: CF Ammonium stillage is prohibited. CGSB Reference: 32.311 Table 4.2 (column 1)	Allowed	Sulphur, elemental Class: CP Both mined and reclaimed sources of elemental sulphur are permitted. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)	Allowed With Restrictions
Struvite (Magnesium Ammonium Phosphate) Class: CF Allowed if made from biological sources, including plant and plant by-products or livestock manures. Prohibited if made from sewage sludge. All sources of magnesium are permitted in the manufacturing process. Levels (mg/kg) of arsenic, cadmium, chromium, lead and mercury shall not exceed the limits (category C1) specified in Guidelines for the Beneficial Use of Fertilising Residuals. Shall not cause a build-up of heavy metals or micronutrients in the soil. CGSB Reference: 32.311 Table 4.2 (column 1)	Allowed With Restrictions	Summer Oils Class: CP For use on foliage, as suffocating or stilet oils. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)	Allowed With Restrictions
Substrate and growth media Class: CF, CP, CT Substrates or growth media ingredients present in the final product shall be listed in CAN/CGSB-32.311 Table 4.2; Substrates or growth media that are not present in the final product shall be non-genetically engineered, if commercially available. *OMRI does not list products in this category. CGSB Reference: 32.310 Subclause 4.1.3; 5.1.2; 6.2.1		Surfactants Class: CF Includes plant-derived saponins, such as <i>Yucca schidigera</i> and <i>Quillaja saponaria</i> , or substances listed in Table 4.2 Formulants used in soil amendments. See also WETTING AGENTS; VEGETABLE OILS; FORMULANTS USED IN SOIL AMENDMENTS. CGSB Reference: 32.311 Table 4.2 (column 1)	Allowed
Sugar Class: CF, CT From organic sources. Organic sugars (e.g., sucrose, glucose, fructose) are permitted. CGSB Reference: 32.311 Table 4.2 (column 1); 4.2 (column 2)	Allowed	Surfactants Class: CP, CT Includes substances listed in Table 4.2 Formulants used in crop production aids; Soaps. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also SOAPS; FORMULANTS USED IN CROP PRODUCTION AIDS. CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)	Allowed With Restrictions
Sulphate of Potash Magnesia Class: CF See MINED MINERALS; POTASSIUM.		Trace elements (micronutrients) Class: CF See MICRONUTRIENTS.	
Sulphur smoke bombs Class: CP For use in conjunction with other methods used for rodent control when a full pest control program is maintained but temporarily overwhelmed. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. CGSB Reference: 32.311 Table 4.2 (column 2)	Allowed With Restrictions	Transplant Media, Potting Soil and Potting Media Class: CF Shall be composed entirely of permitted substances listed in Table 4.2 (column 1 or 2). Soil from the field may be used provided that prohibited substances have not been used on the soil for at least 36 months. See also SOIL. CGSB Reference: 32.311 Table 4.2 (column 1)	Allowed

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Transplant Media, Potting Soil and Potting Media**Allowed With Restrictions**

Class: CF

Shall be composed entirely of permitted substances listed in Table 4.2 (column 1 or 2). Soil from the field may be used provided that prohibited substances have not been used on the soil for at least 36 months. Contains one or more substances with a source or use restriction. Refer to specific ingredient categories for applicable use restrictions. See also TRANSPLANT MEDIA, POTTING SOIL AND POTTING MEDIA.

CGSB Reference: 32.310 Subclause 5.4.5; 32.311 Table 4.2 (column 1)

Treated Seed

Class: CP, CT

Seed treated with biological management agents is permitted. Seed pelletized with clay, gypsum, biological organisms (such as *Rhizobium*) or other allowed coatings is permitted. Plastic polymer pelletization of seed is prohibited. Organic seed and planting stock may be treated, primed, pelleted, or coated with substances listed in Table 4.2 (Column 1 or 2) or Table 7.3 of CAN/CGSB-32.311. OMRI does not review or list treated seed. See SEED TREATMENTS.

CGSB Reference: 32.310 Subclause subclause 5.3

Tree seals**Allowed With Restrictions**

Class: CT

Plant or milk-based paints are permitted. May only be combined with substances listed in Table 4.2 (column 1 or 2). For planting stock: synthetic grafting materials are permitted, provided that plants are maintained in accordance with requirements of CAN/CGSB-32.310 for at least 12 months prior to harvest of organic products. See also PLANT PROTECTANTS.

CGSB Reference: 32.311 Table 4.2 (column 2)

Vegetable Oils

Class: CT

See DUST SUPPRESSANTS; EXTRACTANTS.

Vermicasts

Class: CF

See WORM CASTINGS.

Vermiculite

Class: CF

Allowed

CGSB Reference: 32.311 Table 4.2 (column 1)

Vinegar

Class: CT

See ACETIC ACID.

Virus Sprays

Class: CP

See MICROORGANISMS AND MICROBIAL PRODUCTS.

Vitamins**Allowed**

Class: CF

Biological and mineral sources of all vitamins are permitted. Non-biological and non-mineral sources of vitamins B₁, C (ascorbic acid) and E are permitted.

CGSB Reference: 32.311 Table 4.2 (column 1)

Vitamins**Allowed With Restrictions**

Class: CP

Biological and mineral sources of all vitamins are permitted. Non-biological and non-mineral sources of vitamins B₁, C (ascorbic acid) and E are permitted. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also ASCORBIC ACID (VITAMIN C).

CGSB Reference: 32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)

Water**Allowed**

Class: CT

CGSB Reference: 32.311 Table 4.2 (column 2)

Water, Recycled

Class: CT

Recycled water shall only contain substances listed in CAN/CGSB-32.311 Tables 4.2 (column 1 or 2), 7.3 and 7.4. Recycled wash water from all organic operations, including dairy operations, may be spread on crop lands. Requirements for land application, as specified in 5.5.2.5 of CAN/CGSB-32.310, shall be met. In all other uses, recycled water shall meet applicable irrigation water regulatory requirements. *OMRI does not list products in this category.

CGSB Reference: 32.310 Subclause 5.5.2.5; 32.311 Table 4.2 (column 2)

Wetting Agents

Class: CT

See SURFACTANTS.

Wood Ash

Class: CF

See ASH.

Worm Castings**Allowed**

Class: CF

Worm castings (also called vermicompost, worm compost, vermicasts, worm humus or worm manure) are the end product of the breakdown of organic matter and compounds by some earthworm species. Feedstocks for earthworms shall meet the criteria in COMPOST FEEDSTOCKS. The operator shall be able to demonstrate that: a) worm castings produced either on the farm or obtained from off-farm sources meet the limits for acceptable levels (MPN/g total solids) of human pathogens as specified in Guidelines for Compost Quality; or b) best practices known to eliminate human pathogens during vermicomposting have been used. See also MICROORGANISMS AND MICROBIAL PRODUCTS.

CGSB Reference: 32.311 Table 4.2 (column 1)

Yeast

Class: CF

See MICROORGANISMS AND MICROBIAL PRODUCTS.

Class Codes

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids

Zeolite

Class: CF

See MINED MINERALS.

Zinc**Allowed With Restrictions**

Class: CF

Chelation with substances listed under Table 4.2 Chelates is permitted. EDTA, DTPA, EDDHA, nitrate and ammonium forms of micronutrients are prohibited. May only be used when soil and plant deficiencies are documented by visual symptoms or by testing of soil or plant tissue, or when the need for a preventative application can be documented. See also MICRONUTRIENTS.

CGSB Reference: 32.311 Table 4.2 (column 1)

Livestock

PRODUCTION CATEGORIES

Class Coding

Materials used in the feeding and care of organic livestock are classified by OMRI in the following Use Classes:

- LF: Livestock Feed Ingredients
- LH: Livestock Health Care
- LP: Livestock External Parasiticides and Pesticides
- LT: Livestock Management Tools and Production Aids

Livestock Feed Ingredients (LF) include feed additives and feed supplements, and correspond to substances listed in Table 5.2 of the Permitted Substances List (PSL) [CAN/CGSB-32.311]. They do not encompass agricultural commodities either as feed or forage from range and pasture or as formulated rations, which must be grown to meet organic certification requirements. A feed additive is “a substance added to feed in small quantities to fulfill a specific nutritional need (e.g., essential nutrients in the form of amino acids, vitamins and minerals, and non-nutritive additives such as anticaking agents and antioxidants).” A feed supplement is “a feed that is used with other feed to improve the nutritive balance of the total and that is intended to be a.) fed undiluted as a supplement to other feeds; b.) offered free choice with other parts of the ration separately available; or c.) further diluted and mixed to produce a complete feed.” Feed and feed additives, including amino acids and feed supplements, may not contain substances not in accordance with CAN/CGSB-32.311. In Canada, livestock feed must meet the compositional and labeling standards of the Canada Feeds Regulations, 1983. Ingredients used in livestock feed must be approved and listed in Schedule IV or V of the Feeds Regulations, 1983. Some ingredients and products require registration (e.g., enzymes and milk replacers).

The operator of an organic livestock production facility shall provide livestock with a feed ration balanced to meet their nutritional requirements and consisting of feedstuffs produced in accordance with the COS. Livestock feed shall consist of substances that are necessary and essential for maintaining

the animals’ health, well-being and vitality, and that meet the physiological and behavioral needs of the species in question. Approved feed supplements or additives are not to be used in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.

Livestock Health Care Products (LH) include veterinary drugs, which are “any substance or mixture of substances represented for use or administered in the diagnosis, treatment, mitigation or prevention of disease, disorder, abnormal physical state or its symptoms in animals; restoring, correcting or modifying functions in animals.” Other health care products include medications, remedies, parasiticides, and other substances used to maintain or restore the well-being of an animal. These substances are listed in Table 5.3 of the PSL. According to the COS, the use of biological, cultural, and physical treatments and practices is permitted in accordance with the PSL when preventive practices and vaccines are inadequate to prevent sickness or injury, and where disease and health problems require treatment. Use of veterinary medicinal substances shall comply with Par. 6.6.10 of CAN/CGSB 32.310. Use of parasiticides not on Table 5.3 of the PSL must comply with Par. 6.6.11 of CAN/CGSB 32.310.

Livestock External Parasiticides and Pesticides (LP) include all pesticides that are used to manage ticks, flies and other external parasites and pests. They include pesticides used in barns, poultry houses, and other livestock facilities. These substances are listed in Table 5.3 of the PSL. Other substances for control of vertebrate, invertebrate, and nematode range and pasture pests are covered under Crop Pest, Weed and Disease Control, PSL Table 4.2 (column 2). Use of these substances must comply with subclauses 6.7 and 6.8 (Livestock Health Care and Livestock Living Conditions) of CAN/CGSB 32.310. In Canada, these substances are also subject to regulation under the Pest Management Regulatory Agency (PMRA) Pest Control Products Act.

Livestock Management Tools and Production Aids (LT) include substances listed in Table 5.3 of the PSL that are used for purposes other than providing nutrition or a direct health care effect. Production aids include equipment and facility cleaners, grooming aids, manure/odor management and other materials used on animals and in their living areas. Two examples are bedding and manure odor controls.

Class Codes

- LF: Livestock Feed Ingredient
- LH: Livestock Health Care
- LP: Livestock External Parasiticides and Pesticides
- LT: Livestock Management Tools and Production Aides

Status

Livestock Permitted Substance Categories have one of the following OMRI Status designations:

Allowed (A) livestock production categories include those that appear on Table 5.2 or 5.3 of the PSL with no annotation that limits their use. Products listed under these categories may be given to organic animals and used in their production areas. The OMRI “Allowed” status therefore indicates that these materials are not subject to restrictions that limit their use.

Allowed with Restrictions (R) livestock production

categories include those that appear on Table 5.2 or 5.3 of the PSL with annotations that limit their use. Products listed under these categories are subject to use restrictions per the COS. These standards include: a) requirements that specific substances in the PSL be organic or non-synthetic unless commercially unavailable, or b) other specific use restrictions detailed in the PSL. Source restrictions other than those for the preferential use of non-synthetic or organic sources are evaluated in OMRI's review process and do not result in a substance being designated as “Allowed with Restrictions”.

Listings

Acetylsalicylic acid

Class: LH

Aspirin.

CGSB Reference: 32.311 Table 5.3

Allowed

Acid Activators for Chlorine Dioxide

Class: LT

For the generation of chlorine dioxide. Use of resulting chlorine dioxide must comply with CAN/CGSB-32.311. Must not exceed maximum levels for safe drinking water when used in direct contact with organic products and product contact surfaces without a removal event, including: a) for wash water in direct contact with crops or food, or b) in flush water from cleaning irrigation systems, equipment, and storage and/or transport units - application to crops or fields is permitted. May be used up to maximum label rates on organic product contact surfaces provided that a removal event has eliminated the substance prior to organic production. See also CHLORINE COMPOUNDS.

CGSB Reference: 32.311 Table 7.3; 7.4

Allowed With Restrictions

Acids

Class: LH, LP, LT

Ascorbic, acetic, propionic, citric, formic and lactic acids and vinegar. Permitted for all uses including livestock drinking water treatment and bedding.

CGSB Reference: 32.311 Table 5.3

Allowed

Activated Charcoal

Class: LH, LT

Shall be of plant origin.

CGSB Reference: 32.311 Table 5.3

Allowed

Alcohol, Ethyl (Ethanol)

Class: LH, LT

For use as a disinfectant. For use as a sanitizer.

CGSB Reference: 32.311 Table 5.3

Allowed With Restrictions

Alcohol, isopropyl

Class: LH, LT

For use as a disinfectant.

CGSB Reference: 32.311 Table 5.3

Allowed With Restrictions

Amino Acids

Class: LF

Organic sources, such as fish meal, insect meal, brewer's yeast, potato protein, corn gluten and distillers' grains, shall be the first preference. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. See also YEAST.

CGSB Reference: 32.310 Subclause 6.4.4; 32.311 Table 5.2

Allowed With Restrictions

Amino Acids, biological sources

Class: LF

When the supplementation with organic sources does not meet amino acid requirements to produce a balanced feed as per 6.4.1 and 6.4.2 of CAN/CGSB-32.310, then amino acids derived from biological sources by biofermentation and extracted, or isolated, by hydrolysis or by physical or other non-chemical means may be used. May only be used if organic sources are not commercially available. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. See also YEAST.

CGSB Reference: 32.310 Subclause 6.4.4; 32.311 Table 5.2

Allowed With Restrictions

Antibiotics

Class: LH

Shall be used in compliance with subclause 6.6 of CAN/CGSB-32.310 pertaining to antibiotic use in livestock. See also ANTIBIOTICS, OXYTETRACYCLINE.

CGSB Reference: 32.310 Subclause 6.6; 32.311 Table 5.3

Allowed With Restrictions

Antibiotics, oxytetracycline

Class: LH

For emergency use for bees. The equipment shall be destroyed, in accordance with 7.1.15.7 of CAN/CGSB-32.310; treated bees do not need to be destroyed if they are taken out of organic production.

CGSB Reference: 32.310 Subclause 7.1.15.7; 32.311 Table 5.3

Allowed With Restrictions

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Anti-inflammatories Class: LH Non-steroid anti-inflammatories such as ketoprofen. See 6.6.4 c) 2) of CAN/CGSB-32.310. Preference shall be given to alternative products, such as those listed in CAN/CGSB-32.311 Table 5.3 Botanical compounds; and Homeopathy and biotherapies. For use as an anti-inflammatory. See also HOMEOPATHIC AND BIOTHERAPIES; BOTANICAL COMPOUNDS, DIRECT FED. <i>CGSB Reference: 32.310 Subclause 6.6.4 c) 2); 32.311 Table 5.3</i>	Allowed With Restrictions	Botanical Compounds, direct fed Class: LH, LP Botanical preparations, such as atropine, butorphanol and other medicines from herbaceous plants. May not contain petroleum-derived formulants, such as propylene glycol. Must be used according to label specifications. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions
Antioxidants Class: LF Derived from materials produced by living organisms (such as, but not limited to, plants, animals and microorganisms) using substances listed in Table 6.3 Extraction solvents and precipitation aids. Example: tocopherols derived from plants. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS. <i>CGSB Reference: 32.310 Subclause 6.4.4; 32.311 Table 5.2</i>	Allowed With Restrictions	Botanical Compounds, external use Class: LH, LP Botanical preparations, such as atropine, butorphanol and other medicines from herbaceous plants. Includes substances containing petroleum-derived formulants, such as propylene glycol. Shall not be fed to livestock. Must be used according to label specifications. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions
Bedding Class: LT Bedding material must be capable of absorbing excrement. Non-agricultural, absorbent bedding sources (for example, minerals, cellulose, sawdust, and wood shavings) can be used for livestock bedding as long as they meet the requirements in 1.4 and 1.5, and do not contain, or have not been treated with, prohibited substances. <i>CGSB Reference: 32.310 Subclause 6.7.1.g</i>	Allowed	Calcium Borogluconate Class: LH For treatment of milk fever. No withdrawal period required. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions
Bedding Class: LT From non-organic sources. Bedding material must be capable of absorbing excrement. Bedding material must be non-genetically engineered and free of prohibited substances for at least 60 days prior to harvest. May only be used if organic sources are not commercially available. <i>CGSB Reference: 32.310 Subclause 6.7.1.g</i>	Allowed With Restrictions	Chlorhexidine Class: LH For surgical procedures conducted by a veterinarian. To be used as a post-milking teat dip when alternative germicidal agents and physical barriers have lost their effectiveness. See also TEAT DIPS AND UDDER WASH. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions
Biologics Class: LH Biologics are permitted as a preventative livestock health care practice. May only be used if it has been documented that the targeted diseases are communicable to livestock on the production unit and/or operation and cannot be combated by other means. See also VACCINES, OTHER; VACCINES, COMPLIANT WITH 5.1.2 OF CAN/CGSB-32.311. <i>CGSB Reference: 32.310 Subclause 6.6.1(f); 32.311 Table 5.3</i>	Allowed With Restrictions	Chlorine Compounds Class: LT Includes the following chlorine compounds: calcium hypochlorite, chlorine dioxide, hypochlorous acid generated via electrolyzed water, and sodium hypochlorite. Must not exceed maximum levels for safe drinking water when used in direct contact with organic products and product contact surfaces without a removal event. May be used up to maximum label rates on organic product contact surfaces provided that a removal event has eliminated the substance prior to organic production. <i>CGSB Reference: 32.311 Table 7.3; 7.4</i>	Allowed With Restrictions
Botanical Compounds Class: LT Includes odor control products or other production aids not fed to livestock. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed	Colostrum Class: LH From organic sources. Shall be organic unless commercially unavailable. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed
		Colostrum Class: LH From non-organic sources. May only be used if organic sources are not commercially available. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions

Class Codes

LF: Livestock Feed Ingredient

LH: Livestock Health Care

LP: Livestock External Parasitocides and Pesticides

LT: Livestock Management Tools and Production Aides

Colouring Agents Class: LF From biological sources. <i>CGSB Reference: 32.311 Table 5.2</i>	Allowed	Enzymes Class: LF Enzymes derived from plants, animals, or microorganisms are permitted, including bromelain, bovine liver catalase, ficin, animal lipase, malt, pancreatin, pepsin, trypsin, proteases and carbohydrases. Animal-derived enzymes shall be free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older; and the distal ileum (portion of the small intestine) of cattle of all ages. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. See also PHYTASE. <i>CGSB Reference: 32.310 Subclause 6.4.4; 32.311 Table 5.2</i>	Allowed With Restrictions
Copper Sulphate Class: LH For use as an essential nutrient (source of copper and sulphur) and for topical use (foot baths). <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions	Fishmeal Class: LF All preservatives and other ingredients shall be listed in Table 5.2. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. <i>CGSB Reference: 32.310 Subclause 6.4.4; 32.311 Table 5.2</i>	Allowed With Restrictions
Diatomaceous Earth Class: LF Must be food grade (non-calcined). May be given free choice, or up to 2% of total diet, or as an anti-caking agent in the feed ration. <i>CGSB Reference: 32.311 Table 5.2</i>	Allowed With Restrictions	Flavours Class: LF Shall be organic. <i>CGSB Reference: 32.311 Table 5.2</i>	Allowed
Diatomaceous Earth Class: LP Including non-food grade and calcined forms. For the control of external parasites. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions	Food Waste Class: LF From organic sources. Organic food for human consumption or by-products from organic food production (excluding abattoir waste). Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. <i>CGSB Reference: 32.311 Table 5.2</i>	Allowed With Restrictions
Diatomaceous Earth, external use Class: LH For the control of external parasites. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions	Formic Acid Class: LP For apicultural use to control parasitic mites. This substance may be used after the last honey harvest of the season and shall be discontinued 30 days before the addition of honey supers. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions
Diatomaceous Earth, internal use Class: LH For internal use, diatomaceous earth shall be food grade (non-calcined). As a preventative practice for control of internal parasites. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions	Formulants (inerts, excipients) Class: LT Formulants (inerts, excipients) are not subject to 1.4 or 1.5 of CAN/CGSB-32.310 or CAN/CGSB-32.311 5.1.2. For use as a formulant with substances listed in CAN/CGSB-32.311 Table 5.3. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions
Electrolytes Class: LH Including, but not limited to: CMPK (Calcium, Magnesium, Phosphorus, Potassium), calcium propionate and calcium sulphate. Shall not contain antibiotics. Orally or by injection. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed	Glucose Class: LH, LT <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed
Energy feeds and forage concentrates and roughages Class: LF Shall be obtained from organic sources. May include silage preservation products. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. See also HAY OR SILAGE PRESERVATION PRODUCTS. <i>CGSB Reference: 32.311 Table 5.2</i>	Allowed With Restrictions	Glycerol (glycerine, glycerin) Class: LH, LT From organic sources. Shall be from vegetable oil or animal fat. Shall be produced using fermentation or by hydrolysis. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed

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Glycerol (glycerine, glycerin) Class: LH, LT From non-organic sources. Shall be from vegetable oil or animal fat. Shall be produced using fermentation or by hydrolysis. May only be used if organic sources are not commercially available. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions	Iron Products Class: LH May be supplied by ferric phosphate, ferric pyrophosphate, ferrous lactate, ferrous sulphate, iron carbonate, iron gluconate, iron oxide, iron phosphate, iron sulphate or reduced iron. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed
Hay or silage preservation products Class: LF Preference should be given to bacterial or enzymatic additives derived from bacteria, fungi and plants and food by-products (such as molasses and whey). The following acids may be used: lactic, propionic and formic. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. <i>CGSB Reference: 32.310 Subclause 6.4.4; 32.311 Table 5.2</i>	Allowed With Restrictions	Lanolin Class: LH, LT For external use only, such as udder balm (ointment). <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions
Homeopathic and biotherapies Class: LH <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed	Local Anesthetics, pharmaceutical Class: LH Such as lidocaine. Use of pharmaceutical local anesthetics shall be followed by withdrawal periods of 90 days for livestock intended for slaughter, and seven days for dairy animals. Preference shall be given to alternatives, such as clove oil, listed in Table 5.3 Botanical compounds; Homeopathy and biotherapies. See also LOCAL ANESTHETICS, PREFERRED SOURCES. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions
Honey Class: LH, LP, LT From organic sources. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed	Local Anesthetics, preferred sources Class: LH Preference shall be given to alternatives, such as clove oil, listed in Table 5.3 Botanical compounds; Homeopathy and biotherapies. See also HOMEOPATHIC AND BIOTHERAPIES; BOTANICAL COMPOUNDS, EXTERNAL USE. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed
Hydrated Lime (Calcium Hydroxide) Class: LH, LT Shall not be used to deodorize animal wastes. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions	Lysine, non-biological sources Class: LF When biological sources of lysine are not commercially available for use in monogastrics feeding, as an exception to 5.1.2 (32.311) and 1.4 a) of CAN/CGSB-32.310, all sources of lysine may be used. OMRI does not review or list these alternative sources of lysine. For biological sources of lysine, see AMINO ACIDS listings. <i>CGSB Reference: 32.310 Subclause 6.4.4; CAN/CGSB 32.311 Table 5.2</i>	
Hydrogen Peroxide, food-grade Class: LF For internal use only (e.g., added to livestock drinking water). <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions	Magnesium Sulphate Class: LH, LT Mined sources. A source of magnesium and sulphur. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed
Hydrogen Peroxide, pharmaceutical grade Class: LH Permitted for external use (disinfectant). <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions	Methionine, non-biological sources Class: LF When biological sources of methionine are not commercially available for use in monogastrics feeding, as an exception to 5.1.2 (32.311) and 1.4 a) of CAN/CGSB-32.310, all sources of methionine may be used. OMRI does not review or list these alternative sources of methionine. For biological sources of methionine, see AMINO ACIDS listings. <i>CGSB Reference: 32.310 Subclause 6.4.4; CAN/CGSB 32.311 Table 5.2</i>	
Iodine Class: LH Permitted sources include potassium iodide and elemental iodine. For use as a topical disinfectant. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions	Microorganisms Class: LT Living or dead biological organisms, such as viruses, phages, bacteria, protozoa, fungi, etc. Includes odor control products or other production aids not fed to livestock. <i>CGSB Reference: 32.311 Table 5.3; 32.310 6.7.4</i>	Allowed
Iodine Class: LT Non-elemental iodine. Iodine shall not exceed 5% solution by volume (example: iodophors). For use as a cleaning agent. Use shall be followed by a hot water rinse. <i>CGSB Reference: 32.311 Table 5.3</i>	Allowed With Restrictions		
Class Codes			
LF: Livestock Feed Ingredient			
LH: Livestock Health Care			
LP: Livestock External Parasiticides and Pesticides			
LT: Livestock Management Tools and Production Aides			

<p>Microorganisms Class: LF, LH Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. See also YEAST. CGSB Reference: 32.310 Subclause 6.4.4; CAN/CGSB 32.311 Table 5.2; 5.3</p>	<p>Allowed With Restrictions</p>	<p>Minerals, trace minerals, elements, other sources Class: LF Forms other than: unprocessed rock dusts; ground animal or plant material; and seawater. Chelated and sulphated forms are permitted. May not contain blood or bone meal, or be produced with EDTA and EDDHA. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. Shall not be used to stimulate growth or production. May only be used if unprocessed rock dusts; ground animal or plant material (other than blood or bone meal); and seawater sources are not commercially available. See also MINERALS, TRACE MINERALS, ELEMENTS, PREFERRED SOURCES. CGSB Reference: 32.310 Subclause 6.4.4(e); CAN/CGSB 32.311 Table 5.2</p>	<p>Allowed With Restrictions</p>
<p>Milk Replacer Class: LF From organic sources. Shall be organic if commercially available. Without antibiotics and animal fats or by-products. For emergency use only. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. CGSB Reference: 32.311 Table 5.2</p>	<p>Allowed With Restrictions</p>	<p>Minerals, trace minerals, elements, preferred sources Class: LF Unprocessed rock dusts; ground animal or plant material (other than blood or bone meal); and seawater are preferred sources. Chelated and sulphated forms of these sources are permitted. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. Shall not be used to stimulate growth or production. CGSB Reference: 32.310 Subclause 6.4.4(e); CAN/CGSB 32.311 Table 5.2</p>	<p>Allowed With Restrictions</p>
<p>Milk Replacer Class: LF From non-organic sources. Without antibiotics and animal fats or by-products. For emergency use only. May only be used if organic sources are not commercially available. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. CGSB Reference: 32.311 Table 5.2</p>	<p>Allowed With Restrictions</p>	<p>Molasses Class: LF From organic sources. Non-organic molasses is prohibited. For use as a flavouring agent. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. CGSB Reference: 32.310 Subclause 6.4.4; CAN/CGSB 32.311 Table 5.2</p>	<p>Allowed With Restrictions</p>
<p>Mineral Oil Class: LH, LT For external use. CGSB Reference: 32.311 Table 5.3</p>	<p>Allowed With Restrictions</p>	<p>Oxalic acid Class: LP For mite control in honeybee colonies. CGSB Reference: 32.311 Table 5.3</p>	<p>Allowed With Restrictions</p>
<p>Minerals, trace minerals, elements Class: LH Minerals from any source are permitted for medical use. CGSB Reference: 32.311 Table Table 5.3</p>	<p>Allowed</p>	<p>Oxytocin Class: LH For post-parturition therapeutic use. Meat from treated animals will not lose its organic status. See 6.6.10 d) of CAN/CGSB-32.310, for criteria pertaining to the mandatory withdrawal period. CGSB Reference: 32.311 Table 5.3</p>	<p>Allowed With Restrictions</p>
<p>Minerals, trace minerals, elements Class: LT Non-synthetic chelated or sulphated minerals. Examples include oyster shell, calcium chloride and magnesium oxide. CGSB Reference: CGSB Reference 32.311 Table 5.3</p>	<p>Allowed Non-Synthetic</p>	<p>Paints Class: LT Exterior surfaces may be painted with non-lead-based paints. For use on exterior surfaces of honeybee hives. CGSB Reference: 32.310 Subclause 7.1.13.2</p>	<p>Allowed With Restrictions</p>
<p>Minerals, trace minerals, elements Class: LT May only be used if non-synthetic sources are not commercially available. CGSB Reference: CGSB Reference 32.311 Table 5.3</p>	<p>Allowed With Restrictions Synthetic</p>	<p>Paraffin Class: LT Shall be food-grade. For use in hives. CGSB Reference: 32.311 Table 5.3</p>	<p>Allowed With Restrictions</p>

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Parasiticides and anti-microbials Allowed With Restrictions

Class: LH

Shall be used in compliance with subclause 6.6 of CAN/CGSB-32.310 pertaining to internal parasiticide use in livestock.

CGSB Reference: 32.310 Subclause 6.6; CAN/CGSB 32.311 Table 5.3

Physical Teat Seals Allowed With Restrictions

Class: LH

All sources are permitted. Shall be free from antibiotics. For post-lactation use. Shall be completely removed prior to nursing or milking.

Shall be prescribed and administered under veterinary supervision.

CGSB Reference: 32.311 Table 5.3

Phytase Allowed With Restrictions

Class: LF

GE-derived sources of phytase are allowed even though they are not compliant to 5.1.2 of CAN/CGSB-32.311 or 1.4 a) of CAN/CGSB-32.310. Permitted when feed supplementation with phytase is recommended to reduce the phosphorus level in manure and thereby reduce the potential environmental consequence.

CGSB Reference: 32.311 Table 5.2

Plant Oils Allowed With Restrictions

Class: LH, LP

For the control of external parasites.

CGSB Reference: 32.311 Table 5.3

Prebiotics Allowed

Class: LH

From organic sources.

CGSB Reference: 32.311 Table 5.3

Prebiotics Allowed With Restrictions

Class: LH

From non-organic sources. May only be used if organic sources are not commercially available.

CGSB Reference: 32.311 Table 5.3

Pre-mixes Allowed With Restrictions

Class: LF

From organic sources. Concentrated mixture of minerals and vitamins. All ingredients in pre-mixes shall be listed in Table 5.2. Non GE fillers, for example rice hulls, may be non-organic. Must be essential for animal nutrition. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.

CGSB Reference: 32.310 Subclause 6.4.4; CAN/CGSB 32.311 Table 5.2

Pre-mixes Allowed With Restrictions

Class: LF

From non-organic sources. Concentrated mixture of minerals and vitamins. Ingredients listed in Table 5.2. Non GE fillers, for example rice hulls, may be non-organic. May only be used if organic sources are not commercially available. Must be essential for animal nutrition. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.

CGSB Reference: 32.310 Subclause 6.4.4; CAN/CGSB 32.311 Table 5.2

Probiotics Allowed With Restrictions

Class: LF, LH

May be administered orally, as dietary supplements, via pharmaceutical preparations in the form of capsules, tablets, alginate gels, or dry powder. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.

CGSB Reference: 32.310 Subclause 6.4.4; CAN/CGSB 32.311 Table 5.2; 5.3

Propylene Glycol Allowed With Restrictions

Class: LT

May only be used as an ingredient in foot baths.

CGSB Reference: 32.311 Table 5.3

Protein feeds Allowed With Restrictions

Class: LF

Shall be from organic sources. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.

CGSB Reference: 32.311 Table 5.2

Rotenone

Class: LP

Rotenone is a substance that qualifies as botanical pesticides. However, in countries such as Canada, where rotenone products are no longer registered for agricultural use, they cannot be used for organic production. See BOTANICAL COMPOUNDS.

CGSB Reference: COR SIC 308

Seaweed Meal Allowed With Restrictions

Class: LF

Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.

CGSB Reference: 32.311 Table 5.2

Sedatives Allowed With Restrictions

Class: LH

Such as xylazine. For minimizing pain, stress and suffering during physical alterations permitted under CAN/CGSB 32.210 section 6.6.4, 6.6.6 and 6.6.10.

CGSB Reference: 32.310 Subclause 6.6.4 c); CAN/CGSB 32.311 Table 5.3

Class Codes

LF: Livestock Feed Ingredient

LH: Livestock Health Care

LP: Livestock External Parasiticides and Pesticides

LT: Livestock Management Tools and Production Aides

<p>Selenium Products Class: LH Derived from sodium selenate or sodium selenite. May be used to address documented deficiencies in the stock, soils or feed supplies. See also MINERALS, TRACE MINERALS, ELEMENTS. <i>CGSB Reference: NOP Policy Memo 5.3</i></p>	<p>Allowed With Restrictions</p>	<p>Vaccines, compliant with 5.1.2 of CAN/CGSB-32.311 Class: LH Vaccines compliant with 5.1.2 of CAN/CGSB-32.311. For use in the prevention of disease. May only be used if it has been documented that the targeted diseases are communicable to livestock on the production unit and/or operation and cannot be combated by other means. <i>CGSB Reference: 32.310 Subclause 6.6.1; CAN/CGSB 32.311 Table 5.3; COR SIC 298</i></p>	<p>Allowed With Restrictions</p>
<p>Selenium Yeast Class: LF Yeast that is grown on selenium-rich media. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. May only be used if organic sources are not commercially available. May only be used if unprocessed rock dusts; ground animal or plant material (other than blood or bone meal); and seawater sources are not commercially available. Shall not be used to stimulate growth or production. See also MICROORGANISMS; MINERALS, TRACE MINERALS, ELEMENTS, OTHER SOURCES; MINERALS, TRACE MINERALS, ELEMENTS, PREFERRED SOURCES. <i>CGSB Reference: 32.310 Subclause 6.4.4; CAN/CGSB 32.311 Table 5.2</i></p>	<p>Allowed With Restrictions</p>	<p>Vaccines, other Class: LH If vaccines compliant to 5.1.2 of CAN/CGSB-32.311 are not commercially available, or are ineffective, vaccines not compliant to 5.1.2 are permitted. Vaccines that are not compliant with 5.1.2 of CAN/CGSB-32.311 may be used on day-old birds and fertilized eggs. May only be used if it has been documented that the targeted diseases are communicable to livestock on the production unit and/or operation and cannot be combated by other means. OMRI does not review or list sources of vaccines that do not comply with 5.1.2 of CAN/CGSB-32.311. <i>CGSB Reference: 32.310 Subclause 6.6.1; CAN/CGSB 32.311 Table 5.3; COR SIC 298</i></p>	
<p>Sodium Hydroxide Class: LT For use in dehorning paste. <i>CGSB Reference: 32.311 Table 5.3</i></p>	<p>Allowed With Restrictions</p>	<p>Vitamins Class: LH Vitamin formulants that comply with Canadian regulations are accepted. Vitamins not compliant to CAN/CGSB-32.311 5.1.2 are permitted. Orally, topically or by injection. <i>CGSB Reference: 32.311 Table 5.3</i></p>	<p>Allowed</p>
<p>Substrate and growth media Class: LF, LH, LP, LT Substrates or growth media ingredients present in the final product shall be listed in CAN/CGSB-32.311 Table 4.2; Substrates or growth media that are not present in the final product shall be non-genetically engineered, if commercially available. *OMRI does not list products in this category. <i>CGSB Reference: 32.310 Subclause 4.1.3; 5.1.2; 6.2.1</i></p>	<p>Allowed With Restrictions</p>	<p>Vitamins Class: LF Permitted for enrichment or fortification. Vitamin formulants that comply with Canadian regulations are accepted. Vitamins not compliant to 5.1.2 of CAN/CGSB-32.311 are permitted. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. <i>CGSB Reference: 32.310 Subclause 6.4.4; CAN/CGSB 32.311 Table 5.2; 5.3</i></p>	<p>Allowed With Restrictions</p>
<p>Sulphur Class: LP For the control of external parasites. <i>CGSB Reference: 32.311 Table 5.3</i></p>	<p>Allowed With Restrictions</p>	<p>Yeast Class: LF, LH From non-organic sources. Non-organic yeast sources, including yeast autolysate. May only be used if organic sources are not commercially available. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. <i>CGSB Reference: 32.310 Subclause 6.4.4; CAN/CGSB 32.311 Table 5.2; 5.3</i></p>	<p>Allowed With Restrictions</p>
<p>Teat Dips and Udder Wash Class: LH, LP Includes disinfectants such as alcohol, iodine, hydrogen peroxide, chlorine dioxide and ozone. May be used for a pre- or post-teat dip or udder wash if registered for this use by Canada's Food and Drug Regulations. See also CHLORHEXIDINE. <i>CGSB Reference: 32.311 Table 5.3</i></p>	<p>Allowed With Restrictions</p>	<p>Yeast Class: LF, LH From organic sources. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life. <i>CGSB Reference: 32.310 Subclause 6.4.4; CAN/CGSB 32.311 Table 5.2; 5.3</i></p>	<p>Allowed With Restrictions</p>
<p>Thymol Class: LH, LP Thymol derived from non-botanical sources. See BOTANICAL COMPOUNDS, DIRECT FED (LH, LP) for thymol derived from botanical sources. For use in foot baths only. See also BOTANICAL COMPOUNDS, DIRECT FED. <i>CGSB Reference: 32.311 Table 5.3</i></p>	<p>Allowed With Restrictions</p>		

Processing

& HANDLING CATEGORIES

Class Coding

Processing and handling categories are classified by OMRI according to the following Use Classes:

- PI: Processing Ingredients and Aids
- PP: Processing Pest Controls
- PS: Processing Sanitizers and Cleaners
- PC: Processing Containers and Packaging Materials

Processing Ingredients and Aids (PI) include non-organic food additives and other ingredients and processing aids permitted in organic products. Processing ingredients classified as food additives by the Canada Food and Drug Regulations are listed in Table 6.3 of the PSL. Other permitted processing ingredients that are not considered food additives are listed in Table 6.4 of the PSL. Processing aids appear in Table 6.5 of the PSL.

Organic commercial availability requirements specified in the PSL apply to substances used in products composed of 95% or more organic content. Non-synthetic commercial availability requirements specified in the PSL apply to substances used in products composed of 70% or more organic content.

Processing Pest Controls (PP) substances are pesticides used in and around facilities used to disinfest or prevent infestation of stored commodities, to prevent postharvest decay, and to control damage caused by insects, diseases, rodents and other organisms. Substances permitted for these uses appear in Table 8.2 of the PSL, and may be used in traps, lures, and as repellents unless indicated otherwise within substance annotations. These substances may be used only after the organic operator has adopted good manufacturing practices to prevent pest infestation, which must first involve the removal of pest habitat and food, the prevention of access and environmental management (light, temperature and atmosphere) to prevent pest intrusion and reproduction, and mechanical and physical methods (traps), lures and repellents listed in Table 8.2 of the PSL.

Processing Sanitizers, Cleaners, and Disinfectants

Class Codes

- PI: Processing Ingredients and Aids
- PP: Processing Pest Controls
- PS: Processing Sanitizers and Cleaners
- PC: Processing Containers and Packaging Materials

(PS) are used to remove dirt, filth and foreign matter from products and product handling operations. These substances are also used to control micro-organisms that may contaminate products. They fall under one of the two following general classifications: food-grade cleaners, disinfectants and sanitizers that are allowed on food or food contact surfaces without a mandatory removal event (PSL Table 7.3); or cleaners, disinfectants and sanitizers allowed on food contact surfaces, equipment and in facilities, provided that the substances are removed from food contact surfaces prior to organic production (PSL Table 7.4). The Canada Organic Regime (COR) standards also provide that if the above substances are ineffective, substances that do not appear in these lists may be used to clean, disinfect and sanitize organic food contact surfaces provided that procedures in CAN/CGSB 32.310 subclause 8.2.3 are followed. OMRI does not review or list cleaners, disinfectants and/or sanitizers which may be permitted in Canadian organic production under CAN/CGSB 32.310 subclause 8.2.3.

Processing Containers and Packaging Materials (PC) are used to hold, transport, store, and contain organic food. These are food contact substances that are used to make bags, bins, cans and other containers, or to control ripening when placed inside product packaging. These packaging materials, storage containers or bins may not contain synthetic fungicides, preservatives, fumigants or pesticides.

Status

Substances permitted in processing have one of the following OMRI Status designations:

Allowed (A) processing substances include non-organic ingredients, processing aids and processing pest control substances that appear in Tables 6.3, 6.4, 6.5, 8.2 or 8.3 with no annotation to limit their use. Allowed processing substances also include food-grade cleaners, disinfectants and sanitizers that are allowed on food and food contact surfaces without a mandatory removal event (listed in Table 7.3 of the PSL), and which have no annotation limiting their use.

Allowed with Restrictions (R) processing substances include non-organic ingredients, processing aids and processing pest control substances with limited use annotations on Tables 6.3, 6.4, 6.5, 8.2 or 8.3 of the PSL. These substances

may only be used according to the specific restrictions detailed in the PSL.

Other groups of processing substances which carry the OMRI Allowed with Restrictions status are: a) Substances permitted in products whose contents are 70% or more, and less than 95% organic ingredients, b) Cleaners, disinfectants

and sanitizers allowed on food contact surfaces, including equipment, provided that the substances are removed from food contact surfaces prior to organic production, and c) Food-grade cleaners, disinfectants and sanitizers that are allowed without a mandatory removal event but which have a different limiting annotation.

Listings

Acer pennsylvanicum **Allowed With Restrictions**
Class: PI
For use as an anti-foaming agent in maple syrup production.
CGSB Reference: 32.311 Table 6.5

Acetic Acid **Allowed**
Class: PS
Must be produced by microbial fermentation of natural carbohydrate sources (sugars, wood, etc.). Example: apple cider vinegar. May be filtered or unfiltered. Permitted on organic products and on organic product contact surfaces.
CGSB Reference: 32.311 Table 7.3

Acetic Acid **Allowed With Restrictions**
Class: PS
From sources produced using methods other than microbial fermentation of natural carbohydrate sources. For use on organic product contact surfaces. Direct contact with organic products is prohibited.
CGSB Reference: 32.311 Table 7.3

Acids **Allowed**
Class: PI
Including the following sources: a) alginic; b) citric—from fruit and vegetable products or produced by microbial fermentation of carbohydrate substances; and c) lactic.
CGSB Reference: 32.311 Table 6.3

Activated Charcoal **Allowed With Restrictions**
Class: PI
Shall be of plant origin. Prohibited for use in the production of maple syrup.
CGSB Reference: 32.311 Table 6.3; 6.5

Agar **Allowed**
Class: PI
See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.
CGSB Reference: 32.311 Table 6.3

Alcohol **Allowed**
Class: PS
From organic sources.
CGSB Reference: 32.311 Table 7.3

Alcohol, Ethyl (Ethanol) **Allowed**
Class: PI
From organic sources. Organic alcohol is permitted as a processing aid.
CGSB Reference: 32.311 Table 6.5

Alcohol, Ethyl (Ethanol) **Allowed With Restrictions**
Class: PI
From non-organic sources. As a processing aid. May only be used if organic sources are not commercially available.
CGSB Reference: 32.311 Table 6.5

Alcohol, Ethyl (Ethanol) **Allowed With Restrictions**
Class: PS
For use on organic product contact surfaces.
CGSB Reference: 32.311 Table 7.3

Alcohol, isopropyl **Allowed With Restrictions**
Class: PS
For use on organic product contact surfaces.
CGSB Reference: 32.311 Table 7.3

Alginates **Allowed**
Class: PI
The following alginates are permitted: a) alginic acid; b) potassium alginate; and c) sodium alginate.
CGSB Reference: 32.311 Table 6.3

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Ammonium Bicarbonate Class: PI For use as a leavening agent. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed With Restrictions	Calcium Carbonate Class: PI For use as a food additive or a processing aid, except that use as a colouring agent is prohibited. <i>CGSB Reference: 32.311 Table 6.3; 6.5</i>	Allowed With Restrictions
Ammonium Carbonate Class: PP For use as an attractant in insect traps. <i>CGSB Reference: 32.311 Table 8.2</i>	Allowed With Restrictions	Calcium Chloride Class: PI For use in: a) milk products; b) fat products; c) soybean products; and d) fruits and vegetables. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed With Restrictions
Ammonium Carbonate Class: PI For use as a leavening agent. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed With Restrictions	Calcium Citrate Class: PI <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed
Argon Class: PI <i>CGSB Reference: 32.311 Table 6.3; 6.5</i>	Allowed	Calcium Hydroxide (Lime) Class: PI For use as a processing aid. <i>CGSB Reference: 32.311 Table 6.5</i>	Allowed With Restrictions
Ascorbic Acid (Vitamin C) Class: PI May be used as a food additive. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed	Calcium Phosphates Class: PI Mono-, di-, and tri-basic forms. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed
Ascorbic Acid (Vitamin C) Class: PS <i>CGSB Reference: 32.311 Table 7.3</i>	Allowed	Calcium Sulphate (Gypsum) Class: PI Mined sources; calcium sulphate produced using sulphuric acid is prohibited. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed
Ascorbic Acid (Vitamin C) Class: PI For use as an anti-browning agent prior to the extraction or concentration of fruit or vegetable juice. <i>CGSB Reference: 32.311 Table 6.5</i>	Allowed With Restrictions	Calcium Sulphate (Gypsum) Class: PI Sulphates produced using sulphuric acid are prohibited. May be used: a) as a carrier for cakes and biscuits; b) for soybean products; and c) for bakers' yeast. <i>CGSB Reference: 32.311 Table 6.5</i>	Allowed With Restrictions
Baits for bait stations Class: PP For use in bait stations. <i>CGSB Reference: 32.311 Table 8.2</i>	Allowed With Restrictions	Carbon Dioxide Class: PP, PI Prohibited as food additive for the carbonation of wine or mead. For use as a processing aid. For use in facility pest management. For use in controlled atmosphere storage in post-harvest handling. <i>CGSB Reference: 32.311 Table 6.3; 6.5; 8.2; 8.3</i>	Allowed With Restrictions
Bentonite Class: PI For use as a processing aid. <i>CGSB Reference: 32.311 Table 6.5</i>	Allowed With Restrictions	Carbon dioxide Class: PS <i>CGSB Reference: 32.311 Table 7.3</i>	Allowed
Bleach Class: PS See CHLORINE; OZONE; HYDROGEN PEROXIDE.		Carrageenan (Irish moss) Class: PI For use as a food additive or as a processing aid. When used as a food additive, substances listed in CAN/CGSB 32.311 Table 6.3 Extraction solvents and precipitation aids as well as isopropyl alcohol may be used to derive carrageenan. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS. <i>CGSB Reference: 32.311 Table 6.3; 6.5</i>	Allowed
Boric Acid Class: PP For structural pest control (example: for ants). Direct contact with organic products is prohibited. <i>CGSB Reference: 32.311 Table 8.2</i>	Allowed With Restrictions		

Class Codes

PI: Processing Ingredients and Aids

PP: Processing Pest Controls

PS: Processing Sanitizers and Cleaners

PC: Processing Containers and Packaging Materials

Carriers Class: PI From non-organic sources. Carriers of non-agricultural origin may be used if listed on CAN/CGSB-32.311 Tables 6.3, 6.4 or 6.5. Non-organic carriers may only be used if ingredients or processing aids containing organic carriers are not commercially available. CGSB Reference: 32.311 Table 6.3; 6.4	Allowed With Restrictions	Clove oil Class: PP For post-harvest use as a sprout inhibitor. CGSB Reference: 32.311 Table 8.3	Allowed With Restrictions
Casein Class: PI From organic sources. Organic casein is permitted as a processing aid. CGSB Reference: 32.311 Table 6.5	Allowed	Collagen Casings Class: PI Collagen shall be derived from animal sources. If derived from cattle, collagen shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older; and the distal ileum (portion of the small intestine) of cattle of all ages. Other ingredients (such as, but not limited to: cellulose, calcium coatings, glycerin, etc.) added to collagen casings during their manufacture which remain in the collagen casing when it is used shall respect the requirement provided in 1.4 a) of CAN/CGSB-32.310. For use in poultry sausage. CGSB Reference: 32.311 Table 6.4	Allowed With Restrictions
Casein Class: PI From non-organic sources. Non-organic casein shall be derived from the milk of animals not treated with rBGH (recombinant bovine growth hormone). For use as a production aid. May only be used if organic sources are not commercially available. CGSB Reference: 32.311 Table 6.5	Allowed With Restrictions	Colouring Agents Class: PI From biological sources such as spices, annatto, juices made from plant sources, etc. derived using approved methods (see CAN/CGSB-32.310 Table 12 B (1) and (2), Origin and mode of production), and substances in CAN/CGSB-32.311 Table 6.3 Extraction solvents and precipitation aids. May contain permitted carriers at CAN/CGSB-32.311 Tables 6.3 and 6.4 Carriers. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS; CARRIERS. CGSB Reference: 32.311 Table 6.3	Allowed
Cellulose Class: PI The TCF (Totally Chlorine Free) method of bleaching is permitted. For use as a filtering aid (non-chlorine bleached). For use in inedible regenerative sausage casings. CGSB Reference: 32.311 Table 6.5	Allowed With Restrictions	Cornstarch Class: PI See STARCH.	
Chlorine Compounds Class: PS Includes the following chlorine compounds: calcium hypochlorite, chlorine dioxide, hypochlorous acid generated via electrolyzed water, and sodium hypochlorite. Must not exceed maximum levels for safe drinking water when used in direct contact with organic products and product contact surfaces without a removal event. May be used up to maximum label rates on organic product contact surfaces provided that a removal event has eliminated the substance prior to organic production. CGSB Reference: 32.311 Table 7.3; 7.4	Allowed With Restrictions	Cultures Class: PI See YEAST; MICROORGANISMS.	
Cholecalciferol (Vitamin D₃) Class: PP Prohibited inside organic food processing and food storage facilities. CGSB Reference: 32.311 Table 8.2	Allowed With Restrictions	Defoamers Class: PI From organic sources. Plant-based organic anti-foaming products that have not been chemically altered are permitted defoamers, including for use in conversion of sap to syrup in maple syrup production. Examples include Pennsylvania maple wood (<i>Acer pennsylvanicum</i> , also known as striped maple or moosewood) and organic vegetable oils, except those with allergenic potential. CGSB Reference: 32.311 Table 6.5; 32.310 Subclause 7.2.12.5	Allowed
Citric Acid Class: PI See ACIDS.		Defoamers, Agricultural Source Class: PI From non-organic sources. Must be composed entirely of substances appearing on CAN/CGSB-32.311, Organic Production Systems – Permitted Substances List, allowed for use as food additives or processing aids. May only be used if organic sources are not commercially available. Prohibited for use in the production of maple syrup. CGSB Reference: 32.311 Table 6.3; 6.5; 32.310 subclause 7.2.12.5	Allowed With Restrictions Non-organic, Agricultural
Citric Acid Class: PS CGSB Reference: 32.311 Table 7.3	Allowed		
Clay Dust Class: PI For use as a filtering agent in maple syrup production. CGSB Reference: 32.311 Table 6.5	Allowed With Restrictions		

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Defoamers, Non-Agricultural Source	Allowed With Restrictions	Allowed
Class: PI	Non-Agricultural	
Must be composed entirely of substances appearing on CAN/CGSB-32.311, Organic Production Systems – Permitted Substances List, allowed for use as food additives or processing aids. Prohibited for use in the production of maple syrup.		
<i>CGSB Reference: 32.311 Table 6.3; 6.5; 32.310 subclause 7.2.12.5</i>		
Detergents	Allowed With Restrictions	
Class: PS		
Detergents shall be readily, ultimately or inherently biodegradable as per the Organisation for Economic Cooperation and Development (OECD) definitions, or readily eliminated during wastewater treatment such that harm to the environment is minimized. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.		
<i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>		
Diatomaceous Earth	Allowed	
Class: PP		
Direct contact with organic products is permitted.		
<i>CGSB Reference: 32.311 Table 8.2</i>		
Diatomaceous Earth	Allowed With Restrictions	
Class: PI		
For use as a clarifying agent. For use as a filtering aid.		
<i>CGSB Reference: 32.311 Table 6.5</i>		
Dibasic Ammonium Phosphate	Allowed With Restrictions	
Class: PI		
Also known as diammonium phosphate or DAP. For use as a yeast food in cider, mead and wine up to 0.3 g/L (0.04 oz./gal.).		
<i>CGSB Reference: 32.311 Table 6.3</i>		
Enzymes	Allowed With Restrictions	
Class: PI		
From non-organic sources. Enzymes derived from animals shall be organic if commercially available: rennet; catalase from bovine liver; animal lipase; pancreatin; pepsin; and trypsin. Animal-derived enzymes shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of ruminants aged 30 months or older; and the distal ileum (portion of the small intestine) of ruminants of all ages. May only be used if organic sources are not commercially available.		
<i>CGSB Reference: 32.311 Table 6.3; 6.5</i>		
Enzymes, egg white lysozyme	Allowed	
Class: PI		
See also ENZYMES, PLANT OR ORGANIC ANIMAL DERIVED.		
<i>CGSB Reference: 32.311 Table 6.3; 6.5</i>		
Enzymes, plant or organic animal derived		Allowed
Class: PI		
Any preparations of enzymes normally used in food processing derived from edible, non-toxic plants, non-pathogenic fungi or nonpathogenic bacteria. Includes organic enzymes derived from animals: rennet; catalase from bovine liver; animal lipase; pancreatin; pepsin; and trypsin. Animal-derived enzymes shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of ruminants aged 30 months or older; and the distal ileum (portion of the small intestine) of ruminants of all ages.		
<i>CGSB Reference: 32.311 Table 6.3; 6.5</i>		
Essential oils	Allowed With Restrictions	
Class: PS		
Derived from plant sources using substances on CAN/CGSB-32.311 Table 6.3 Extraction solvents and precipitation aids. May contain carriers permitted on CAN/CGSB-32.311 Tables 6.3 and 6.4 Carriers. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.		
<i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>		
Ethylene	Allowed With Restrictions	
Class: PI		
For post-harvest ripening of tropical fruit and degreening of citrus and to control sprouting of potatoes post-harvest in holding bins.		
<i>CGSB Reference: 32.311 Table 8.3</i>		
Extraction solvents and precipitation aids	Allowed With Restrictions	
Class: PI		
The following may be used: a) Water; b) culinary steam, containing only substances listed in CAN/CGSB-32.311 Tables 6.3-6.5 and food-grade cleaners, disinfectants and sanitizers authorized for organic product contact in Table 7.3 of CAN/CGSB-32.311; c) fats, oils and alcohols other than isopropyl alcohol; d) supercritical CO ₂ ; and e) substances listed in CAN/CGSB-32.311 Tables 6.3-6.5. Precipitation aids derived from biological sources (such as plant proteins, albumin, casein, and gelatin) may also be used. In addition, non-biological precipitation aids, such as bentonite, silicon dioxide, etc., may be used if listed in CAN/CGSB-32.311 Tables 6.3-6.5. If listed in CAN/CGSB-32.311 Tables 6.3-6.5, precipitation aids shall meet any annotation restrictions therein. For deriving substances listed in CAN/CGSB-32.311 Tables 5.2, 6.3, 6.4 and 6.5.		
<i>CGSB Reference: 32.311 Table 6.3; 32.310 Subclause 8.1.2.b</i>		
Ferrous sulphate	Allowed With Restrictions	
Class: PI		
Shall be used if legally required and may be used, on a voluntary basis, if legally permitted.		
<i>CGSB Reference: 32.311 Table 6.4</i>		

Class Codes

PI: Processing Ingredients and Aids

PP: Processing Pest Controls

PS: Processing Sanitizers and Cleaners

PC: Processing Containers and Packaging Materials

Flavours	Allowed		
Class: PI			
Derived from biological sources using approved methods (see Table 12 B (1) & (2) of CAN/CGSB-32.310), and substances (see CAN/CGSB-32.311 Table 6.3 Extraction solvents and precipitation aids). May contain permitted carriers on CAN/CGSB-32.311 Tables 6.3 and 6.4 Carriers. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.			
<i>CGSB Reference: 32.311 Table 6.4</i>			
Formulants, PMRA List 1 and 2	Prohibited		
Class: PP			
Formulants classified as List 1 or 2 by PMRA are prohibited.			
<i>CGSB Reference: 32.311 Table 8.2</i>			
Formulants, PMRA List 3	Allowed With Restrictions		
Class: PP			
Formulants classified as List 3 by PMRA are not subject to 1.4 or 1.5 of CAN/CGSB-32.310. For use as a formulant with passive pheromone dispensers. See also PHEROMONES AND OTHER SEMIOCHEMICALS.			
<i>CGSB Reference: 32.311 Table 8.2</i>			
Formulants, PMRA List 4A and 4B	Allowed With Restrictions		
Class: PP			
Only formulants classified as List 4A or 4B by the Pest Management Regulatory Agency (PMRA) or derived from biological or mineral sources may be used with substances in Table 8.2 or 8.3. Formulants classified as List 4A or 4B by PMRA are not subject to 1.4 or 1.5 of CAN/CGSB-32.310. For use as a formulant with substances listed in CAN/CGSB-32.311 Table 8.2 or 8.3.			
<i>CGSB Reference: 32.311 Table 8.2; 8.3</i>			
Gelatine	Allowed		
Class: PI			
From organic sources. Plant sources are permitted.			
<i>CGSB Reference: 32.311 Table 6.3; 6.5</i>			
Gelatine	Allowed With Restrictions		
Class: PI			
From non-organic sources. Permitted sources are: a) plants; and b) animals. If derived from cattle, gelatine shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older; and the distal ileum (portion of the small intestine) of cattle of all ages. May only be used if organic sources are not commercially available. Animal gelatine may be used as a processing aid in preparations of canned meat or as a gelling agent for gummed candy. As a food additive, no additional restriction.			
<i>CGSB Reference: 32.311 Table 6.3; 6.5</i>			
Gelatine	Allowed With Restrictions		
Class: PI			
From organic sources. If derived from cattle, gelatine shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older; and the distal ileum (portion of the small intestine) of cattle of all ages. Animal gelatine may be used as a processing aid in preparations of canned meat or as a gelling agent for gummed candy. As a food additive, no additional restriction.			
<i>CGSB Reference: 32.311 Table 6.3; 6.5</i>			
Glucono Delta-lactone	Allowed		
Class: PI			
Production by the oxidation of D-glucose with bromine water is prohibited.			
<i>CGSB Reference: 32.311 Table 6.3; 6.5</i>			
Glucono Delta-lactone	Allowed		
Class: PI			
Production by the oxidation of D-glucose with bromine water is prohibited.			
<i>CGSB Reference: 32.311 Table 6.3</i>			
Glycerides, Mono- and Di-	Allowed With Restrictions		
Class: PI			
From non-organic sources. For use in drum drying of products. May only be used if organic sources are not commercially available.			
<i>CGSB Reference: 32.311 Table 6.3</i>			
Glycerides, Mono- and Di-	Allowed With Restrictions		
Class: PI			
From organic sources. For use in drum drying of products.			
<i>CGSB Reference: 32.311 Table 6.3</i>			
Glycerol (glycerine, glycerin)	Allowed		
Class: PI			
From organic sources. Shall be from vegetable oil or animal fat. Shall be produced using fermentation or by hydrolysis.			
<i>CGSB Reference: 32.311 Table 6.3</i>			
Glycerol (glycerine, glycerin)	Allowed		
Class: PS			
Shall be sourced from vegetable oil or animal fat. Shall be produced using fermentation or by hydrolysis.			
<i>CGSB Reference: 32.311 Table 7.3</i>			
Glycerol (glycerine, glycerin)	Allowed With Restrictions		
Class: PI			
From non-organic sources. Shall be from vegetable oil or animal fat. Shall be produced using fermentation or by hydrolysis. May only be used if organic sources are not commercially available.			
<i>CGSB Reference: 32.311 Table 6.3</i>			
Gums	Allowed		
Class: PI			
The following gums are permitted: Arabic gum, carob bean gum (locust bean gum), gellan gum, guar gum, karaya gum, tragacanth gum, and xanthan gum. Shall be derived using substances listed in CAN/CGSB-32.311 Table 6.3 Extraction solvents and precipitation aids. By exception, isopropyl alcohol may also be used to derive gums.			
<i>CGSB Reference: 32.311 Table 6.3</i>			
Hydrogen Peroxide	Allowed		
Class: PS			
<i>CGSB Reference: 32.311 Table 7.3</i>			

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Iodine Class: PS Non-elemental iodine. Shall not exceed 5% solution by volume (example: iodophors). May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions	Magnesium Carbonate Class: PI For use as an anti-caking agent in non-standardized dry mixes (e.g., seasonings) used in meat products with 70-95% organic content. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed With Restrictions
Isinglass Class: PI For use as a fining agent. <i>CGSB Reference: 32.311 Table 6.5</i>	Allowed With Restrictions	Magnesium Chloride (nigari) Class: PI Derived from seawater. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed
Kaolin Class: PI For use as a clarifying agent. <i>CGSB Reference: 32.311 Table 6.5</i>	Allowed With Restrictions	Magnesium Stearate Class: PI For use as an anti-caking or releasing agent. May only be used in products whose contents are 70 percent or more, and less than 95 percent organic ingredients. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed With Restrictions
Kelp and kelp products Class: PI For use as a thickener and dietary supplement. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed With Restrictions	Magnesium Sulphate Class: PS <i>CGSB Reference: 32.311 Table 7.3</i>	Allowed
Lactic acid Class: PI See ACIDS.		Magnesium Sulphate Class: PI <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed
Lactic acid Class: PS <i>CGSB Reference: 32.311 Table 7.3</i>	Allowed	Malic acid Class: PI <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed
Lecithin Class: PI From organic sources. Bleached form is permitted if processed using food-grade hydrogen peroxide. <i>CGSB Reference: 32.311 Table 6.3; 6.5</i>	Allowed	Meat curing agents Class: PI From organic sources. Organic extracts, juice or cultured powder of celery or chard are permitted. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed
Lecithin Class: PI From non-organic sources. Bleached form is permitted if processed using food-grade hydrogen peroxide. May only be used if organic sources are not commercially available. <i>CGSB Reference: 32.311 Table 6.3; 6.5</i>	Allowed With Restrictions	Meat curing agents Class: PI From non-organic sources. Extracts, juice or cultured powder of celery or chard are permitted. May only be used if organic sources are not commercially available. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed With Restrictions
Lime Class: PS All forms of lime, including calcium carbonate, calcium hydroxide and calcium oxide. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions	Microorganisms Class: PI Microbial preparations may contain substrates derived from agricultural or biological substances such as milk, lactose, soy, agar, etc. May also contain permitted carriers listed in CAN/CGSB-32.311 Tables 6.3 and 6.4 Carriers. Includes starter and dairy cultures and other preparations of microorganisms normally used in product processing. See also CARRIERS. <i>CGSB Reference: 32.311 Table 6.4</i>	Allowed
Class Codes PI: Processing Ingredients and Aids PP: Processing Pest Controls PS: Processing Sanitizers and Cleaners PC: Processing Containers and Packaging Materials		Microorganisms Class: PS Living or dead biological organisms, such as viruses, phages, bacteria, protozoa, fungi, etc. <i>CGSB Reference: 32.311 Table 7.3</i>	Allowed
		Neem oil Class: PP <i>CGSB Reference: 32.311 Table 8.2</i>	Allowed

Nitrogen Class: PI Shall be food-grade quality. <i>CGSB Reference: 32.311 Table 6.4; 6.5</i>	Allowed	Peroxyoctanoic acid (POOA) Class: PS May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions
Nitrogen Class: PI For controlled atmosphere storage. <i>CGSB Reference: 32.311 Table 4.2 (column 2); 8.3</i>	Allowed With Restrictions	Pheromones and other semiochemicals Class: PP Formulants classified in List 3 by PMRA may be used with passive pheromone dispensers. For use as a pest control in pheromone traps or passive dispensers. <i>CGSB Reference: 32.311 Table 8.2</i>	Allowed With Restrictions
Octanoic acid (caprylic acid) Class: PS May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions	Phosphoric Acid Class: PS For use on dairy equipment. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions
Oxygen Class: PI Oxygen is permitted as an ingredient, processing aid and for post-harvest use. <i>CGSB Reference: 32.311 Table 6.4; 6.5; 8.3</i>	Allowed	Potassium Acid Tartrate Class: PI $KC_4H_6O_6$. From grapes/wine-making. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed
Ozone Class: PS, PI <i>CGSB Reference: 32.311 Table 6.3; 6.5; 7.3</i>	Allowed	Potassium Bicarbonate Class: PS For use on organic product contact surfaces. <i>CGSB Reference: 32.311 Table 7.3</i>	Allowed With Restrictions
Packaging Materials Class: PC If producing or preparing organic products, the following substances, materials or techniques are prohibited since they are incompatible with the general principles of organic production: equipment, harvest and storage containers, storage facilities and packaging materials treated with fungicides, preservatives, fumigants and pesticides not listed in CAN/CGSB-32.311, except as permitted in 8.2.3 and 8.3.3 of CAN/CGSB-32.310. OMRI does not review or list packaging materials treated with substances permitted under CAN/CGSB-32.310 §8.3.3. Intentional use of materials or products derived from nanotechnology in packaging materials is not allowed if transference of nano-particles to organic products is likely to occur. <i>CGSB Reference: 32.310 Subclause 1.4.b.2; 1.4.e</i>	Allowed	Potassium Carbonate Class: PI Mono- and bi- forms may be used as a food additive. Potassium carbonate may also be used as a processing aid. <i>CGSB Reference: 32.311 Table 6.3; 6.5</i>	Allowed
Pectin Class: PI High-methoxyl and low-methoxyl pectin sources are permitted. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed	Potassium Carbonate Class: PS Documentation shall demonstrate that effluent discharge was neutralized to minimize negative environmental impact. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions
Peracetic Acid/Peroxyacetic Acid Class: PS For use in wash or rinse water on food and plants. For use on food contact surfaces. <i>CGSB Reference: 32.311 Table 7.3</i>	Allowed With Restrictions	Potassium Chloride Class: PI From mined sources such as sylvite, carnalite, and potash. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed
Perlite Class: PI For use as a filtering aid. <i>CGSB Reference: 32.311 Table 6.5</i>	Allowed With Restrictions	Potassium Chloride Class: PI For use as a yeast food in alcoholic beverages: permitted for ale, beer, light beer, malt liquor, porter and stout. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed With Restrictions

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Potassium Citrate Class: PI <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed	Repellents Class: PP Shall be derived from a biological source, such as sterilized blood meal, rotten eggs, hair or predator scents. May contain other biological components and PMRA 4a- or 4b-listed formulants. For facility pest management. Shall be used in conjunction with the practices enumerated in CAN/CGSB-32.310 8.3.1 (a-c). <i>CGSB Reference: 32.310 Subclause 8.3.2; 32.311 Table 8.2</i>	Allowed With Restrictions
Potassium hydroxide (caustic potash) Class: PS May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions	Salt Class: PI Substances listed in CAN/CGSB-32.311 Tables 6.3 or 6.4 may be added to mined or sea salt. See Glossary for definition of "salt." See also POTASSIUM CHLORIDE; SODIUM CHLORIDE. <i>CGSB Reference: 32.311 Table 6.4</i>	Allowed
Potassium hydroxide (caustic potash) Class: PI For use as a processing aid. Prohibited for use in lye peeling of fruits and vegetables. <i>CGSB Reference: 32.311 Table 6.5</i>	Allowed With Restrictions	Sanitizers, Disinfectants and Cleaners Class: PS OMRI does not review or list cleaners, disinfectants and/or sanitizers which may be allowed in Canadian organic production under CAN/CGSB 32.310 subclause 8.2.3. A certification body must determine if and how these materials may be used. For use as a cleaner, disinfectant and sanitizer on organic food-contact surfaces if substances in Tables 7.3 and 7.4 are ineffective, provided that documentation demonstrates: a) the efficacy of the alternative substance(s); and b) removal event(s) have eliminated the alternative substance(s) from organic product contact surfaces prior to organic production; and c) that effluent discharge was neutralized to minimize negative impact on the environment. <i>CGSB Reference: 32.310 Subclause 8.2.1; 8.2.2; 8.2.3</i>	
Potassium Iodide Class: PI Shall be used if legally required or permitted. <i>CGSB Reference: 32.311 Table 6.4</i>	Allowed With Restrictions	Saponin Class: PS Derived from plants such as <i>Yucca schidigera</i> and <i>Quillaja saponaria</i> . May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions
Potassium Metabisulphite Class: PI See SULPHUR DIOXIDE, ANHYDROUS (SO ₂)		Silicon dioxide (silica) Class: PI When used in maple syrup production, may only be used with a filter press to remove suspended solids. See also SYRUP FILTRATION AND OTHER TREATMENTS. <i>CGSB Reference: 32.311 Table 6.3; 6.5; 32.310 Subclause 7.2.12.6</i>	Allowed With Restrictions
Potassium Permanganate Class: PS Shall not exceed 1% solution by volume. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions	Smoke Flavour Class: PI See YEAST	
Potassium Phosphate (mono-, di-, and tribasic forms) Class: PI May only be used in products whose contents are 70 percent or more, and less than 95 percent organic ingredients. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed With Restrictions	Soap-based Algicide (demossers) Class: PS May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	
Potassium Tartrate Class: PI K ₂ C ₄ H ₄ O ₆ . INS 336. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed		
Pyrethrins Class: PP Without piperonyl butoxide. Direct contact with organic products is prohibited. <i>CGSB Reference: 32.311 Table 8.2</i>	Allowed With Restrictions		

Class Codes

PI: Processing Ingredients and Aids

PP: Processing Pest Controls

PS: Processing Sanitizers and Cleaners

PC: Processing Containers and Packaging Materials

Soaps Class: PS Soaps shall consist of fatty acids derived from animal or vegetable oils. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions	Sodium Chloride Class: PI <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed
Soaps, Ammonium Class: PP For use as a large animal repellent. Direct contact with organic products is prohibited. <i>CGSB Reference: 32.311 Table 8.2</i>	Allowed With Restrictions	Sodium Citrate Class: PS, PI <i>CGSB Reference: 32.311 Table 6.3; 7.3</i>	Allowed
Sodium Acid Pyrophosphate Class: PI For use as a leavening agent. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed With Restrictions	Sodium hydroxide (lye or caustic soda) Class: PS <i>CGSB Reference: 32.311 Table 7.3</i>	Allowed
Sodium bicarbonate (baking soda) Class: PS <i>CGSB Reference: 32.311 Table 7.3</i>	Allowed	Sodium hydroxide (lye or caustic soda) Class: PI Prohibited for use in lye peeling of fruits and vegetables. <i>CGSB Reference: 32.311 Table 6.3; 6.5</i>	Allowed With Restrictions
Sodium bicarbonate (baking soda) Class: PI <i>CGSB Reference: 32.311 Table 6.3; 6.5</i>	Allowed	Sodium Percarbonate Class: PS May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions
Sodium borate Class: PS May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions	Sodium Phosphates Class: PI For use in dairy products. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed With Restrictions
Sodium carbonate (soda ash) Class: PS Only biological or mined sources may be used on food or food contact surfaces without a mandatory removal event. <i>CGSB Reference: 32.311 Table 7.3</i>	Allowed	Sodium Silicate Class: PS For use in detergents. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. See also DETERGENTS. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions
Sodium carbonate (soda ash) Class: PI From biological or mined sources. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed	Starch Class: PI From rice and waxy maize. Shall be derived using substances listed in CAN/CGSB-32.311 Table 6.3 Extraction solvents and precipitation aids, where applicable. Starch shall not be modified by chemicals. Starch may be modified using physical or enzymatic methods. Cornstarch—May contain substances that are plant-derived and/or listed in CAN/CGSB-32.311 Tables 6.3-6.5. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS. <i>CGSB Reference: 32.311 Table 6.4</i>	Allowed
Sodium carbonate (soda ash) Class: PI May only be used if biological or mined sources are not commercially available. <i>CGSB Reference: 32.311 Table 6.3</i>	Allowed With Restrictions	Substrate and growth media Class: PS, PI Substrates or growth media ingredients present in the final product shall be listed in CAN/CGSB-32.311 Table 4.2; Substrates or growth media that are not present in the final product shall be non-genetically engineered, if commercially available. *OMRI does not list products in this category. <i>CGSB Reference: 32.310 Subclause 4.1.3; 5.1.2; 6.2.1</i>	
Sodium carbonate (soda ash) Class: PS Synthetic sources. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. <i>CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2</i>	Allowed With Restrictions		

Sulphur dioxide, anhydrous (SO₂) Allowed With Restrictions

Class: PI

Sulphites from SO₂- bottled gas; as liquid SO₂; or liberated from ignition of asbestos-free sulphur wicks are permitted. Sulphurous acid (aqueous sulphur dioxide) and Potassium metabisulphite are also permitted. For use as a preservative in alcoholic beverages; minimal use of SO₂ is recommended. Maximum allowable levels of SO₂ in parts per million (ppm) are: a) in alcoholic beverages containing less than 5% residual sugar, 100 ppm and 30 ppm for total sulphites and free sulphites, respectively; b) in alcoholic beverages containing 5% - 10% residual sugar, 150 ppm and 35 ppm for total and free sulphites, respectively; and c) in alcoholic beverages containing more than 10% or more residual sugar, 250 ppm and 45 ppm for total and free sulphites, respectively.

*CGSB Reference: 32.311 Table 6.3***Sulphurous acid (aqueous sulphur dioxide)**

Class: PI

See SULPHUR DIOXIDE, ANHYDROUS (SO₂).**Surfactants Allowed With Restrictions**

Class: PS

Surfactants either stand alone or when formulated with detergents shall be readily, ultimately or inherently biodegradable as per the Organisation for Economic Co-operation and Development (OECD) definitions, or readily eliminated during wastewater treatment such that harm to the environment is minimized. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. See also SOAPS; DETERGENTS.

*CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2***Syrup filtration and other treatments**

Class: PI

Organic maple syrup shall not be refined by artificial means, bleached or lightened in colour. Simple filtration via the following methods is permitted: through cloth or paper, a filter press or food-grade diatomaceous earth, or use of silica powder or clay dust with a filter press to remove suspended solids. *OMRI does not list products in this category. See DIATOMACEOUS EARTH; CLAY DUST; SILICON DIOXIDE (SILICA).

*CGSB Reference: 32.310 Subclause 7.2.12.6***Talc Allowed With Restrictions**

Class: PI

For use as a filtering aid.

*CGSB Reference: 32.311 Table 6.5***Tannic Acid Allowed With Restrictions**

Class: PI

From non-organic sources. For use as a filtration aid for wines. May only be used if organic sources are not commercially available. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.

*CGSB Reference: 32.311 Table 6.5***Tannic Acid Allowed With Restrictions**

Class: PI

From organic sources. Shall be derived using substances listed in Table 6.3 Extraction solvents and precipitation aids. For use as a filtration aid for wines. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.

*CGSB Reference: 32.311 Table 6.5***Tartaric Acid Allowed With Restrictions**

Class: PI

From wine lees. For use in beverages.

*CGSB Reference: 32.311 Table 6.3; 6.5***Tocopherols and mixed natural concentrates Allowed**

Class: PI

Derived from vegetable oil when rosemary extracts are not a suitable alternative.

*CGSB Reference: 32.311 Table 6.3***Vegetable Oils Allowed With Restrictions**

Class: PI

From organic sources. Derived using substances listed in CAN/CGSB-32.311 Table 6.3 Extraction solvents, carriers and precipitation aids. Vegetable oils used in maple syrup production shall not have allergenic potential. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.

*CGSB Reference: 32.311 Table 6.3; 6.5***Vegetable Oils Allowed With Restrictions**

Class: PI

From non-organic sources. Non-organic vegetable oils derived using substances listed in CAN/CGSB-32.311 Table 6.3 Extraction solvents, carriers and precipitation aids. May only be used if organic sources are not commercially available. Prohibited for use in the production of maple syrup. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.

*CGSB Reference: 32.311 Table 6.3; 6.5***Vinegar Allowed**

Class: PS

*CGSB Reference: 32.311 Table 7.3***Vitamins and mineral nutrients Allowed With Restrictions**

Class: PI

For use on a voluntary basis, if legally permitted, in the following non-dairy substitute products: plant-based beverages, products that resemble cheese, and butter substitutes. Shall be used if legally required (e.g., fluid milk, white flour, infant formula, meal replacement, etc.). See also FERROUS SULPHATE.

*CGSB Reference: 32.311 Table 6.4***Waxes Allowed With Restrictions**

Class: PC

From non-organic sources. Non-edible, fully removable (i.e., no knife is needed to cut or peel the wax away from the cheese), non-organic cheese wax may be used and shall be considered packaging per CAN/CGSB-32.310 8.1.6. May only be used if organic sources are not commercially available. May only be used as non-edible, fully removable cheese wax. See also WAXES, CHEESE COATING, EDIBLE.

*CGSB Reference: 32.311 Table 6.5***Class Codes**

PI: Processing Ingredients and Aids

PP: Processing Pest Controls

PS: Processing Sanitizers and Cleaners

PC: Processing Containers and Packaging Materials

Waxes, cheese coating, edible Allowed With Restrictions

Class: PI

From non-organic sources. Edible wax cheese coatings that require a knife to cut or peel the wax away shall not contain paraffin, micro-crystalline wax, non-listed preservatives, colours, bactericides, or fungicides. May only be used if organic waxes, such as beeswax or carnauba, are not commercially available.

CGSB Reference: 32.311 Table 6.5

Waxes, produce Allowed

Class: PI

From organic sources. Organic beeswax and organic carnauba wax may be used to wax produce.

CGSB Reference: 32.311 Table 6.3

Waxes, produce Allowed With Restrictions

Class: PI

From non-organic sources. Non-organic wax may be used to wax produce. May only be used if organic sources are not commercially available.

CGSB Reference: 32.310 Subclause 9.2.1.d; 32.311 Table 6.3

Wetting Agents Allowed With Restrictions

Class: PS

Substances listed in Table 4.2 or 7.3, including saponins and microbial wetting agents. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. See also SOAPS; DETERGENTS.

CGSB Reference: 32.311 Table 7.4; 32.310 Subclause 8.2.2

Yeast Allowed

Class: PI

From organic sources.

CGSB Reference: 32.311 Table 6.3; 6.4

Yeast Allowed With Restrictions

Class: PI

From non-organic sources. When organic sources of yeast are not commercially available, these alternative sources of yeast may be used: a) autolysate; b) bakers' (may contain lecithin, as listed in CAN/CGSB-32.311 Table 6.3); c) brewers'; d) nutritional; and e) torula. Growth on petrochemical substrate and sulphite waste liquor is prohibited. Yeast may be smoked or smoke flavoured. When smoked, the smoke must come from concentrated, condensed smoke from wood without additional ingredients (unless listed in CAN/CGSB-32.311 Tables 6.3, 6.4 or 6.5). May only be used if organic sources are not commercially available.

CGSB Reference: 32.311 Table 6.3; 6.4

OMRI Canada Standards Manual Glossary

Biobased – Substance that is derived from a plant, animal or microbial source.

Biodegradable – Capable of microbial decomposition within 24 months in soil (with the exception of plant biomass), one month in aerated water, two months in anaerobic water, with minimal impact on the environment.

Canada Organic Regime (COR) – Canada’s regulated system for organic agricultural products. The Canadian Organic Standards are part of this system.

Canadian Food Inspection Agency (CFIA) – Canadian governmental agency responsible for supervising and inspecting Canada’s food supply while safeguarding plant and animal resources.

Canadian General Standards Board (CGSB) – Governmental institution that oversees the creation and amendment of standards throughout Canada. See *Standards Committee on Organic Agriculture*.

Canadian Organic Standards (COS) – Body of standards applied to organic food production under the Canada Organic Regime. Includes CAN/CGSB -32.310 and 32.311.

CAN/CGSB-32.310 – The “General Principles and Management Standards” section of the Canadian Organic Standards, which describes the principles and management standards of organic production systems.

CAN/CGSB-32.311 – The “Permitted Substances List” section of the Canadian Organic Standards, which lists substances allowed in organic production systems. This regulation is also referred to as the PSL.

Category, OMRI Use – General category of materials used in organic crop production, food processing, and livestock production. All products on the *OMRI Products List* have been reviewed to meet the standards in a particular category. For OMRI listing under Canada Organic Regime (COR) standards, these categories are called Permitted Substances Categories.

Certification Bodies (CBs) – Organizations accredited by the CFIA to verify application of the Canadian Organic Standards for a specific producer and food product. Accreditation by the CFIA is based on recommendation of a Conformity Verification Body.

Class, OMRI – Part of the OMRI classification system that groups products with similar use attributes. Some examples of OMRI classes are Crop Fertilizers and Soil Amendments (CF) and Livestock Feed Ingredients (LF).

Conformity Verification Body (CVB) – An organization that has an agreement with the Canadian Food Inspection Agency under subsection 14(1) of the Canadian Food Inspection Agency Act to assess, recommend for accreditation and monitor certification bodies.

Feed Additive – A substance added to feed in small quantities to fulfill a specific nutritional need (e.g., essential nutrients in the form of amino acids, vitamins and minerals, and non-nutritive additives such as anticaking agents and antioxidants).

Feed Supplement – A feed that is used with another feed to improve the nutritive balance of the total and that is intended to be (i) fed undiluted as a supplement to other feeds; (ii) offered free choice with other parts of the ration separately available; or (iii) further diluted and mixed to produce a complete feed.

Food Additive – Term defined in Section B.01.001 of Part B of the Food and Drug Regulations, which includes: any substance the use of which results, or may reasonably be expected to result, in it or its by-products becoming a part of or affecting the characteristics of a food, but does not include

- (a) any nutritive material that is used, recognized or commonly sold as an article or ingredient of food;
- (b) vitamins, mineral nutrients and amino acids, other than those listed in the tables to Division 16,
- (c) spices, seasonings, flavouring preparations, essential oils, oleoresins and natural extractives;
- (d) agricultural chemicals, other than those listed in the tables to Division 16,
- (e) food packaging materials and components thereof; and
- (f) drugs recommended for administration to animals that may be consumed as food; (*additif alimentaire*).

Food-grade – Designation used to identify that a substance (e.g., a cleaning material, gas, etc.) or material (e.g., a counter, containers, a conveyor, etc.) may come in contact with food, food contact surfaces and/or is safe for human consumption.

Formulant – Any component of a pest control product that is added intentionally to the product and that is not an active ingredient.

Genetic Engineering – Also commonly known as resulting in Genetically Modified Organisms (GMOs). The artificial manipulation of living cells for the purpose of altering its genome constitutes genetic engineering and refers to a set of techniques from modern biotechnology by which the genetic material of an organism is changed in a way that does not occur other than through traditional breeding by multiplication or natural recombination. The genome is considered an indivisible entity; artificial technical/physical insertions, deletions, or rearrangements of elements of the genome constitute genetic engineering. Techniques developed in the future may be considered genetic engineering.

Health Canada – Governmental body with broad responsibility for helping the people of Canada maintain and improve their health. Oversees the Pest Management Regulatory Agency.

Incidental Additives – Substances used in organic processing facilities that have the potential to remain present in organic products as residues. Examples are: hand products (cleaners, antiseptics, lotions, barrier creams), boiler water treatment compounds, water treatment compounds, lubricants (release agents, solvents), anti-foaming agents and non-food chemicals (sanitizers, disinfectants, cleaning agents and detergents).

Inert Ingredient – See *Formulant*.

Ingredient – Substance, including a food additive, used in the manufacture or preparation of a product. The substance is present in the final product, possibly in a modified form.

Input – Substance used in production or preparation. Examples are: fertilizers, feed supplements, pesticides, and soil amendments, veterinary treatments, processing aids, sanitizing and cleaning materials.

Ionizing Radiation – A sanitation or preservative method for packaged or bulk foodstuffs that controls insect infestation and that reduces microbial load by ionizing radiation from Cobalt-60 or Cesium-137; or X-rays generated by a machine source operated at or below an energy level of 5 MeV; or from electrons generated by a machine source operated at or below an energy level of 10 MeV. OMRI does not permit the use of ionizing radiation on any ingredients or products except for those exempted in the PSL.

Irradiation – Treatment with ionizing radiation.

Nanotechnology – Manipulation of matter at atomic, molecular, or macromolecular dimensions typically between 1 and 100 nm to create materials, devices and systems with fundamentally new properties and functions. Nanoscale chemical substances, or nanomaterials, behave differently from their macroscale counterparts, exhibiting different mechanical, optical, magnetic and electronic properties.

Non-synthetic – Substance derived from mineral, plant or animal matter that has not been chemically altered.

Permitted Substances Categories, OMRI – Categories that describe how a particular material is correlated to the Canadian Organic Standards and, in particular, the Permitted Substances List. All products on the *OMRI Canada Products List*[®] have been reviewed to meet the standards in a particular category.

Permitted Substances List (PSL) – See *CAN/CGSB -32.311*.

Pest Control Products (PCP) Act – An enforcement act of the Canadian government to regulate the products employed for the control of pests and organic functions of plants and animals.

Pest Management Regulatory Agency (PMRA) – Agency under Health Canada responsible for pesticide regulation.

Pesticides – Substances used, directly or indirectly, to attract, prevent, destroy, repel or mitigate pests; or to alter the growth, development or characteristics of plants. Includes any organism; substance or mixture of substances; and devices, such as lures or traps.

Prebiotic – Fibre food and potential carriers for bacteria. Examples of prebiotic substrates are inulin, lactulose, various galacto, fructo, or xylo-oligosaccharides and sugar alcohols.

Probiotics – Microorganisms that provide health benefits when consumed.

Processing Aids – Substances added to food during processing for a technological effect, but are not present in the finished product or at insignificant and non-functional levels.

Removal Event – Procedure performed prior to organic production runs, batches or loads, to prevent organic products from coming into contact with prohibited substances or commingling with non-organic products. Examples of removal events are rinsing with potable water, letting surfaces drip-dry and purging a system with organic product.

Salt – Sodium chloride, or low-sodium and sodium-free substitutes that serve the purpose of providing salt flavour, nutrition or microbial control in a product. When used as a soil amendment, the term "salt" also includes calcium chloride and potassium chloride.

Sewage Sludge – Solid, liquid or semisolid residues generated by municipal or industrial sewage treatment facilities. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary or advanced wastewater treatment processes; or material derived from sewage sludge.

Specified risk material (SRM) – the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older; and the distal ileum (portion of the small intestine) of cattle of all ages.

Standards Committee on Organic Agriculture – Committee of the Canadian General Standards Board including over 100 technical experts representing user, producer, general interest and regulatory groups. Forty members of this Committee are voting members. The other technical experts are information members.

Standards Interpretation Committee (SIC) – Advisory body that assists in interpretation of the Canadian Organic Standards.

Symbiotics – Combinations of prebiotics and probiotics. Many contain a combination of probiotic culture with a prebiotic substrate that favors its growth.

Veterinary Biologic – Helminth, protozoa or microorganism; or a substance or mixture of substances derived from animals, helminths, protozoa or microorganisms; or a substance of synthetic origin that is manufactured, sold or represented for use in restoring, correcting or modifying functions in animals or for use in the diagnosis, treatment, mitigation or prevention of a disease, disorder, abnormal physical state, or the symptoms thereof, in animals. Veterinary biologics include vaccines, bacterins, bacterin-toxoids, immunoglobulin products, diagnostic kits and any veterinary biologic derived through biotechnology.

Veterinary Drug – A substance or mixture of substances represented for use or administered in the diagnosis, treatment, mitigation or prevention of disease, disorder, abnormal physical state or its symptoms in animals; restoring, correcting or modifying functions in animals.

Yeast – Single-celled microorganisms that produce enzymes, carbon dioxide (CO₂), and other metabolites from carbohydrates, whose functional roles are frequently used in the processes of fermentation, baking and flavoring foods, adding nutritional value and providing health benefits.

Yeast Autolysate Extract – Water-soluble components of the yeast cell, generally produced by autolysis, a process in which the rupture of cell wall is induced mechanically or chemically.

