

# OMRI

# Generic Materials List

SUPPLEMENT TO THE 2015 OMRI GENERIC MATERIALS LIST

FALL 2016

## Crop Materials

### Use 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 (CF)** contain one or more recognized plant nutrients. Used primarily for their plant nutrient content, they may be applied to the soil or to the foliage of plants. They include compost, animal manures, blended fertilizers, mined minerals, micronutrients, blood/bone meals, and plant extracts that make plant nutrient claims. Soil amendments include liming/acidification materials, worm castings, peat moss, mulch, and any other input that is applied as a soil conditioner. Use of fertilizers and soil amendments must meet the NOP Rule §205.203 management practice standards.

**Crop pest, weed, and disease control (CP)** substances are used as pesticides for plant disease control, invertebrate pest control, vertebrate pest control, weed control, as plant growth regulators, or in post-harvest pest control. They may be applied to either plants or soil unless restrictions specify otherwise.

Substances that are allowed only for disease control may not be used for insect or weed control. Most products sold with pesticide or growth regulator claims in the United States must be registered with the U.S. Environmental Protection Agency unless they are exempt from registration. See the INERTS entry in this list for restrictions on their use in formulated products. Use of crop pest, weed, and disease control materials must meet the NOP Rule §205.206 management practice standards.

**Crop management tools and production aids (CT)** include inputs that do not provide a recognized plant nutrient, soil conditioning, or crop protection function. **This group includes substances for post-harvest handling, adjuvants, equipment cleaners, compost inoculants, and plant extracts without nutrient or pest control claims.** Many of these products are nonsynthetic and are therefore not included on the National List. In cases where their use is not specifically addressed in the NOP Rule, the provisions of NOP Rule §205.105 apply a general allowance of nonsynthetic substances produced without the use of excluded methods, ionizing radiation or sewage sludge.

## Updated Categories

**Acid Activators for Chlorine Dioxide**      **Allowed with Restrictions**  
Class: CT      Synthetic/Nonsynthetic  
For use only as a precursor to generate chlorine dioxide. See also CHLORINE DIOXIDE.

**NOP Rule:** 205.601(a)(2)(ii)

*Date: October 13, 2016*

This addendum reflects all changes made through October 13 2016. Please use this addendum in conjunction with the 2015 *OMRI Generic Materials List* for the most current information.

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## Calcium Lignosulfonate

Class: CT

May be used as a chelating agent, dust suppressant, and floating agent in post-harvest handling. May be used as either an adjuvant or inert ingredient in combination with active pesticidal ingredients [excluding 25(b) exempt pesticides]. See also INERTS – LIST 4 and LIGNIN SULFONATES. Also known as “lignosulfonic acid, calcium salt.”

**NOP Rule:** 205.601(j)(4), 205.601(l)(1); *Guidance 5023*

*Date: October 13, 2016*

## Allowed with Restrictions

Synthetic

## Carbon Dioxide

Class: CT

Nonsynthetic forms are allowed. May also be used in post-harvest handling of raw agricultural commodities.

**NOP Rule:** 205.105; *Guidance 5023*

*Date: October 13, 2016*

## Allowed

Nonsynthetic

## Chlorine Materials

Class: CT

Includes calcium hypochlorite, sodium hypochlorite, and chlorine dioxide, and hypochlorous acid generated by electrolyzed water.

Residual chlorine levels in the water in direct crop contact (when used pre-harvest) or as water from cleaning irrigation systems applied to the soil should not exceed the maximum residual disinfectant level under the SDWA, except that chlorine products may be used in edible sprout production according to EPA label directions. May be used up to maximum labeled rates for disinfecting and sanitizing equipment or tools. No intervening event is necessary before equipment is used in contact with organic crops. See Processing and Handling section for post-harvest use.

**NOP Rule:** 205.601(a)(2); *Guidance 5026; Policy Memo 15-4*

*Date: November 3, 2015*

## Allowed with Restrictions

Synthetic

## Lignin Sulfonates

Class: CT

Includes these lignosulfonic acids: ammonium lignosulfonate, calcium lignosulfonate, magnesium lignosulfonate, and sodium lignosulfonate. May be used as a chelating agent, dust suppressant, floating agent in post-harvest handling, and some may be used as inert ingredients in pesticide formulations. See also CALCIUM LIGNOSULFONATE, INERTS – LIST 4 and INERTS – LIST 3. Synthetic lignin sulfonates are prohibited for use as fertilizers. For example, ammonium lignosulfonate is prohibited for use as a nitrogen fertilizer. Formulated products with ammonium lignosulfonate are subject to two criteria: (1) no nitrogen claims are made on the label and/or (2) the nitrogen contribution of the ammonium lignosulfonate to the formulated product is less than 1%.

**NOP Rule:** 205.601(j)(4), 205.601(l)(1); *Guidance 5023*

*Date: October 13, 2016*

## Allowed with Restrictions

Synthetic

## Ozone Gas

Class: CT

May only be used as an irrigation system cleaner. See separate entry in Processing section for permitted uses in post-harvest handling.

**NOP Rule:** 205.601(a)(5)

*Date: October 13, 2016*

## Allowed with Restrictions

Synthetic

## Sodium Silicate

Class: CT

May only be used as floating agent in post-harvest handling for tree fruit and fiber processing.

**NOP Rule:** 205.601(l)(2); *Guidance 5023*

*Date: October 13, 2016*

## Allowed with Restrictions

Synthetic

# Livestock Materials

## Use 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 Parasitocides and Pesticides

LT: Livestock Management Tools and Production Aids

**Livestock feed ingredients (LF)** are limited to substances that are added to livestock feed as feed additives and feed supplements. This Use Class does not include agricultural commodities either as feed or forage from range and pasture or as formulated rations, which must be grown to meet organic certification requirements. Feed additives are substances added to feed in micro quantities to fulfill a specific nutritional need, and include nonsynthetic, nonagricultural substances that are not explicitly prohibited by NOP Rule §205.604 and synthetic substances permitted under NOP Rule §205.603. Feed additives include FDA-approved vitamins and minerals, including those forms listed by the Association of American Feed Control Officials (AAFCO) (see Appendix A: Livestock Vitamins and Minerals). Feed supplements include substances that improve the nutritional balance or performance of a total feed ration and may be fed free choice or diluted with other feeds. Agricultural products used as feed supplements and additives must be from certified organic sources. Mammalian or poultry slaughter by-products are not permitted in feed formulations for mammals or poultry. Use of feed ingredients must meet the NOP Rule §205.237, livestock feed standards.

**Carriers:** Some feed additive and supplement products contain carriers. AAFCO defines a ‘carrier’ as “an edible material to which ingredients are added to facilitate uniform incorporation of the latter into feeds. The active particles are absorbed, impregnated, or coated into or onto the edible material in such a way as to physically carry the active ingredient.” Carriers derived from agricultural products used in feed additives shall satisfy all requirements in NOP Rule §205.237. Carriers used in feed additives such as vitamins, minerals, and amino acids may contain ingredients that are nonsynthetic and not otherwise prohibited by the NOP Rule, or on the National List of allowed synthetic substances consistent with that function. Agricultural carriers added to an organic feed must be organically produced and handled.

**Livestock health care (LH)** materials include animal drugs, internal parasitocides, general use health care substances, internal and topical medications, and biologics. Under the NOP Rule §205.238(c), synthetic medications are prohibited for use in organic livestock production unless they are specifically allowed in NOP Rule §205.603. Allowed medications also must be used in a way that is consistent with FDA regulations. FDA considers an-

imal drugs to include any substance that is used for diagnosis, mitigation, treatment, or prevention of disease in animals as well as items other than food intended to treat animal body structure and function. Biologics and vaccines may be used for prevention of endemic diseases. Medications other than vaccines may only be used to treat diagnosed illnesses. In general, the organic standards allow the use of nonsynthetic substances to maintain the health of animals as long as they are not prohibited under NOP Rule §205.604. Use of health care substances must meet the NOP Rule §205.238 health care practice standards.

**Livestock external parasiticides and pesticides (LP)** include 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 materials include synthetic substances allowed under NOP Rule §205.603 and nonsynthetic substances that are not otherwise prohibited under NOP Rule §205.604. Other substances for control of vertebrate, invertebrate, and nematode range and pasture pests are covered under CROP PRODUCTION MATERIALS. Use of external parasiticides and pesticides must meet the NOP Rule §205.238 health care practice standards.

**Livestock management tools and production aids (LT)** are materials used in livestock production that have neither a nutritional nor a direct health care function. Production aids include equipment and facility cleaners, grooming aids, and other materials used on animals and in their living areas. Synthetic substances used as livestock management tools must appear in NOP Rule §205.603 of the National List to be allowed. Nonsynthetic substances are allowed unless specifically prohibited by NOP Rule §205.604. Use of management tools and production aids must meet the management and production practice standards of NOP Rule §§205.105(a) and 205.200.

## Updated Categories

**Acid Activators for Chlorine Dioxide**      **Allowed with Restrictions**  
 Class: LT      Synthetic/Nonsynthetic  
 For use only as a precursor to generate chlorine dioxide. See also CHLORINE DIOXIDE.  
**NOP Rule:** 205.603(a)(7)  
*Date: October 13, 2016*

**Chlorine Materials**      **Allowed with Restrictions**  
 Class: LT      Synthetic  
 Includes calcium hypochlorite, chlorine dioxide, sodium hypochlorite, and hypochlorous acid generated by electrolyzed water. May be used for disinfecting livestock facilities and equipment. Chlorine products may be used up to maximum labeled rates for sanitizing equipment or tools (including dairy pipelines and tanks). Label instructions should be followed regarding requirements for rinsing or not rinsing prior to the equipment's next use. Residual chlorine levels in the water in direct contact with food products or animals shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.  
**NOP Rule:** 205.603(a)(7); *Guidance 5026; Policy Memo 15-4*  
*Date: November 3, 2015*

# Processing Materials

## Use Class Coding and Status

Processing and handling materials are classified by OMRI according to the following uses and applications:

- PA:** Processing Agricultural Ingredients and Processing Aids
- PN:** Processing Nonagricultural Ingredients and Processing Aids
- PP:** Processing Pest Controls
- PS:** Processing Sanitizers and Cleaners
- PC:** Processing Containers and Packaging Materials

**Processing agricultural ingredients and processing aids (PA)** include organically produced agricultural commodities used as ingredients in products labeled as 'organic' under NOP Rule §205.301, and nonorganic agricultural ingredients allowed under NOP Rule §205.606. NOP Rule § 205.606 further requires that a USDA Accredited Certifying Agent determine that any non-organically produced agricultural ingredients used are not commercially available in organic form. Agricultural ingredients and processing aids used in processed products labeled as 'organic' must meet the handling standards in NOP Rule §205.270 and the product composition requirements in NOP Rule §205.301.

Agricultural ingredients that are not organically produced may be used in processed products that make the claim, 'made with organic [specific ingredients or food groups]' provided that the content of certified organic agricultural ingredients is a minimum of 70%, excluding water and salt, and that the nonorganic agricultural ingredients are produced and handled without the use of genetic engineering, sewage sludge or ionizing radiation.

A certification agent should be consulted for information on the determination of commercial availability and the effective date(s) of enforcement.

Note that PA substances that are identified as on §205.606 Interim Final are subject to removal by the USDA without notice of proposed rule making.

*Allowed PA* substances are certified organic and may be used as ingredients in a product labeled 'organic,' or identified as an organic ingredient in a processed product labeled as 'made with organic [specific ingredients]'. To be used as an ingredient in a processed product labeled as '100% organic,' that ingredient must itself be certified 100% organic. (See NOP Rule §§205.270 and 205.301).

*Allowed with Restrictions PA* substances are not certified organic and may be used as ingredients in processed products labeled as 'Made with Organic [specific ingredients]' provided that: a) those ingredients are not claimed to be organic; b) they are not produced or handled by the use of sewage sludge, genetic engineering, or ionizing radiation; c) organic ingredients comprise at least 70% of all ingredients in the product, excluding

water and salt; and d) the product is labeled according to the standards set out in NOP Rule §§205.301(c) and 205.304. Products labeled as ‘organic’ may contain nonorganically produced agricultural ingredients provided that the final food product contains at least 95% certified organic agricultural ingredients, excluding water and salt, and the certifier determines that the ingredient is not commercially available in an organic form and meets all of the requirements of NOP Rule §§205.301(b), 205.301(f), and 205.606.

*Prohibited PA* substances are prohibited for use in any processed food product that makes any organic claim as generally defined in NOP Rule §205.105. They include agricultural ingredients that are produced or handled with the use of sewage sludge, genetic engineering (GMOs or excluded methods), or ionizing radiation.

**Processing nonagricultural ingredients and processing aids (PN)** may be used in processed organic food products labeled as “organic” (containing 95 percent or more organic ingredients by weight, excluding water and salt) or “made with organic ingredients” (70 percent or greater organic ingredients). This category includes the nonagricultural substances covered under the NOP Rule §205.605 and used as food additives and processing aids regardless of whether they are required to be listed as an ingredient on the final product label. Use of nonagricultural ingredients and processing aids must meet the NOP Rule §205.270 organic handling standards.

*Allowed PN* substances may be present in any processed food labeled as “organic” at up to 5 percent by weight, excluding water and salt.

*Allowed with Restrictions PN* substances may be used only in certain foods and/or only under the use restrictions set out in NOP Rule §205.605. This group includes a number of food additives and processing aids that are permitted only for specific functions, such as filtering aids.

*Prohibited PN* substances are prohibited by NOP Rule §205.270. These materials may not be used in or on processed foods labeled as “organic” or “made with organic.”

**Processing pest controls (PP)** are used to disinfest or prevent infestation of stored commodities, prevent postharvest decay, provide pest control in handling facilities, and control damage caused by insects, diseases, rodents, and other organisms. Many of these products are EPA regulated pesticides. Use of processing pest controls must meet the NOP Rule §205.271 facility pest management practice standards and comply with all applicable health and food safety laws. Allowed PP substances serve as environmental, mechanical, or physical controls—such as traps, lures, and repellents—for removal of pests and pest habitat. They include substances that are not specifically prohibited by NOP Rule §205.605.

*Allowed with Restrictions PP* substances are ‘Allowed with restriction’ under NOP Rule §205.605. This group also includes nonsynthetic post-harvest pest control substances, which are not otherwise prohibited under NOP Rule §205.602 and may be used in direct contact with raw agricultural commodities provided they are labeled for such use and are not present as an ingredient in the final product. This group also includes facility pest management substances that are consistent with the National List that may be used in accordance with restrictions at §205.271(c). Materials consistent with the National List that may be used in facility pest management includes nonsynthetic substances that are not otherwise prohibited under NOP Rule §205.602 and synthetic substances listed in NOP Rule §§205.601, 205.603, or 205.605 in accordance with any restrictions.

*Prohibited PP* substances include materials that are not permitted on the National List for pest control or are prohibited by NOP Rule §§205.602 and 205.604. These products may be used in accordance with §205.271(d) provided that the certifier agrees on the use and methods of application of the substance in a manner that does not contact organic products or ingredients. Prohibited PPs also include synthetic fungicides, preservatives, and fumigants used in packaging material as outlined in NOP Rule §205.272.

**Processing Sanitizers and Cleaners (PS)** are used to remove dirt, filth, and foreign matter from food and food handling operations. These materials are also used to control microorganisms that may contaminate food. Use of processing sanitizers and cleaners must meet the NOP Rule §205.270 organic handling practice standards and comply with all applicable health and food safety laws.

*Allowed PS* substances include materials that may be used on food or food contact surfaces without any restriction or intervening event. These substances must be explicitly listed in NOP Rule §205.605.

*Allowed with Restrictions PS* substances include cleaners and sanitizers that may be used following restrictions set out in NOP Rule §205.605. If product includes ingredients that are not permitted by NOP Rule §205.605, contact with organic food must be prevented in accordance with §205.272(a) by a sufficient intervening event such as a hot water rinse or purge. Nonsynthetic substances that are not on §205.605(a) but are not otherwise prohibited or restricted by §205.602 may be used in post-harvest handling of raw agricultural commodities, either on farms or in handling facilities.

*Prohibited PS* substances are persistent materials that cannot be removed by an intervening event such as a hot water rinse and therefore may not be used on food or food contact surfaces.

Processing Container 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. OMRI does not have standards for the review of food contact substances other than containers or packaging materials at the present time.

*Allowed PC* substances include edible materials such as coatings and casings that may be used on organic food without restriction. These substances must be explicitly listed under NOP Rule §205.605 when nonagricultural and NOP Rule §205.606 when agricultural.

*Allowed with Restrictions PC* substances include packaging materials that may be used following restrictions set out in NOP Rule §205.605 when edible and nonagricultural, NOP Rule §205.606 when agricultural, and NOP Rule §205.272(b)(1) when not edible.

*Prohibited PC* substances are packaging materials that contain substances that are prohibited for the use in handling organically produced products or organic food ingredients under NOP Rule §205.272(b), such as synthetic preservatives, fungicides, and fumigants.

## Updated Categories

### Boric Acid

Class: PP

May be used as an insecticide for structural pest control provided there is no direct contact with organic food or crops.

**NOP Rule:** 205.271(c); 205.601(e)(3); Guidance 5023

Date: October 13, 2016

### Allowed with Restrictions

Synthetic

### Botanical Pesticides

Class: PP

May be used as a pesticide only in conjunction with the facility pest management practices provided for in paragraphs 205.271(a) and (b) and only if those practices are not effective to prevent or control pests alone. May also be used for post-harvest handling of raw agricultural commodities. See also PYRETHRUM and glossary definition of "pesticide."

**NOP Rule:** 205.271(c); Guidance 5023

Date: October 13, 2016

### Allowed with Restrictions

Nonsynthetic, Agricultural

### Carbon Dioxide

Class: PN, PP

May be used as ingredient or processing aid. May also be used in post-harvest handling of raw agricultural commodities.

**NOP Rule:** 205.270 (b); 205.605 (b); Guidance 5023

Date: October 13, 2016

### Allowed

Synthetic, Nonagricultural

### Chlorine Materials

Class: PS

Includes calcium hypochlorite, sodium hypochlorite, chlorine dioxide, and hypochlorous acid generated by electrolyzed water. May be used in direct contact with post-harvest crop or food at levels approved by the Food and Drug Administration or the Environmental Protection Agency for such a purpose. Such use must include a final rinse and residual chlorine levels in final rinse water shall not exceed the Maximum Residual Disinfectant Limit under the Safe Drinking Water Act, except that a final rinse is not required for use in FSIS inspected egg breaking facilities. When used as disinfectants and sanitizers for food contact surfaces, chlorine materials may be used up to maximum labeled rates and rinsing is not required unless mandated by the label use directions.

**NOP Rule:** 205.605(b); Guidance 5026; Policy Memo 14-2 and 15-4

Date: November 3, 2015

### Allowed with Restrictions

Synthetic, Nonagricultural

### Citrus Products

Class: PP

May be used as a pesticide only in conjunction with the facility pest management practices provided for in paragraphs 205.271(a) and (b) and only if those practices are not effective to prevent or control pests alone. May also be used for post-harvest handling of raw agricultural commodities. See also LIMONENE, D-LIMONENE, and BOTANICAL PESTICIDES.

**NOP Rule:** 205.271(c); Guidance 5023

Date: October 13, 2016

### Allowed with Restrictions

Nonsynthetic, Nonagricultural

### Citrus Products

Class: PS

May be used only in post-harvest handling of raw agricultural commodities. See also FRUIT AND VEGETABLE WASH; LIMONENE; and D-LIMONENE.

**NOP Rule:** Guidance 5023

Date: October 13, 2016

### Allowed with Restrictions

Nonsynthetic, Nonagricultural

### Confectionary Coatings

Class: PA, PN

Synthetic/Nonsynthetic, Agricultural/Nonagricultural Nonagricultural ingredients on 205.605(a)-(b) and agricultural ingredients that are either organically produced or are nonorganic and meet the requirements of 205.606 may be used to coat organic food. See also individual coating ingredients such as WAX; SHELLAC, ORANGE – UNBLEACHED; WOOD RESIN and BEESWAX.

**NOP Rule:** 205.270(b); 205.605; 205.606

Date: October 13, 2016

### Allowed

Synthetic/Nonsynthetic, Agricultural/Nonagricultural

### Cyclohexylamine (CAS #108-91-8)

Class: PS

**NOP Rule:** 205.105(c)

Date: October 13, 2016

### Prohibited

Synthetic, Nonagricultural

### Diatomaceous Earth

Class: PP

May be used as a pesticide only in conjunction with the facility pest management practices provided for in paragraphs 205.271(a) and (b) and only if those practices are not effective to prevent or control pests alone. May also be used for post-harvest handling of raw agricultural commodities.

**NOP Rule:** 205.271(c); Guidance 5023

Date: October 13, 2016

### Allowed with Restrictions

Nonsynthetic, Nonagricultural

<p><b>Diethylaminoethanol (CAS #100-37-08)</b> Class: PS <b>NOP Rule:</b> 205.105(c)</p>	<p><b>Prohibited</b> Synthetic, Nonagricultural  <i>Date: October 13, 2016</i></p>	<p><b>Fruit and Vegetable Wash - post-harvest</b> Class: PS Must be composed only of ingredients consistent with 205.605 and 205.606, and substances that are permitted in accordance with NOP Guidance 5023. May be used only in post-harvest handling of raw agricultural commodities. <b>NOP Rule:</b> 205.605; 205.606; Guidance 5023  <i>Date: October 13, 2016</i></p>
<p><b>D-limonene</b> Class: PP May be used as a pesticide only in conjunction with the facility pest management practices provided for in paragraphs 205.271(a) and (b) and only if those practices are not effective to prevent or control pests alone. May also be used for post-harvest handling of raw agricultural commodities. See also BOTANICAL PESTICIDES and CITRUS PRODUCTS. <b>NOP Rule:</b> 205.271(c)</p>	<p><b>Allowed with Restrictions</b> Nonsynthetic, Nonagricultural  <i>Date: October 13, 2016</i></p>	<p><b>Fumigants - nonsynthetic</b> Class: PP Must be from a nonsynthetic source. May be used as a pesticide only in conjunction with the facility pest management practices provided for in paragraphs 205.271(a) and (b) and only if those practices are not effective to prevent or control pests alone. May also be used for post-harvest handling of raw agricultural commodities. <b>NOP Rule:</b> 205.271(c); Guidance 5023  <i>Date: October 13, 2016</i></p>
<p><b>D-limonene</b> Class: PS May be used only in post-harvest handling of raw agricultural commodities. See also CITRUS PRODUCTS; FRUIT AND VEGETABLE WASH; and LIMONENE. <b>NOP Rule:</b> Guidance 5023</p>	<p><b>Allowed with Restrictions</b> Nonsynthetic, Nonagricultural  <i>Date: October 13, 2016</i></p>	<p><b>Inerts-facility pest management</b> Class: PP Inert ingredients used in facility pest management products must either be nonsynthetic and not prohibited by §205.602, or synthetic and classified permitted by §205.601(m) or listed on §205.605. <b>NOP Rule:</b> Guidance 5023 part 3.2  <i>Date: October 13, 2016</i></p>
<p><b>Egg White Lysozyme</b> Class: PN <b>NOP Rule:</b> 205.105(c)</p>	<p><b>Prohibited</b> Nonsynthetic, Nonagricultural  <i>Date: October 13, 2016</i></p>	<p><b>Inerts-post-harvest pest control</b> Class: PP Inert ingredients used in post-harvest pest control substances on raw agricultural commodities must either be nonsynthetic and not prohibited by §205.602 or synthetic and permitted by §205.601(m). <b>NOP Rule:</b> Guidance 5023 part 3.2  <i>Date: October 13, 2016</i></p>
<p><b>Electrolyzed Water</b> Class: PS Electrolyzed water contains the active ingredient hypochlorous acid (HOCl) which is generated from the electrolysis of salt (sodium chloride) in water. May be used in direct contact with post-harvest crop or food at levels approved by the Food and Drug Administration or the Environmental Protection Agency for such a purpose. Such use must include a final rinse and residual chlorine levels in final rinse water shall not exceed the Maximum Residual Disinfectant Limit under the Safe Drinking Water Act, except that a final rinse is not required for use in FSIS inspected egg breaking facilities. When used as disinfectants and sanitizers for food contact surfaces, chlorine materials may be used up to maximum labeled rates and rinsing is not required unless mandated by the label use directions. <b>NOP Rule:</b> 205.605(b); Guidance 5026; NOP Policy Memo 15-4 and 14-2 <i>Date: November 3, 2015</i></p>	<p><b>Allowed with Restrictions</b> Synthetic, Nonagricultural  <i>Date: November 3, 2015</i></p>	<p><b>Lignin Sulfonates</b> Class: PN May be used as a floating agent in post-harvest handling. <b>NOP Rule:</b> 205.601(l)(1); Guidance 5023  <i>Date: October 13, 2016</i></p>
<p><b>Ethylene</b> Class: PN Allowed for post-harvest ripening of tropical fruit and degreening of citrus. Inert ingredients must be nonsynthetic or compliant with 205.601(m). <b>NOP Rule:</b> 205.605(b); Guidance 5023</p>	<p><b>Allowed with Restrictions</b> Synthetic, Nonagricultural  <i>Date: October 13, 2016</i></p>	<p><b>Limonene</b> Class: PP May be used as a pesticide only in conjunction with the facility pest management practices provided for in paragraphs 205.271(a) and (b) and only if those practices are not effective to prevent or control pests alone. May also be used for post-harvest handling of raw agricultural commodities. See also BOTANICAL PESTICIDES; CITRUS PRODUCTS; and D-LIMONENE. <b>NOP Rule:</b> 205.271(c)  <i>Date: October 13, 2016</i></p>
<p><b>Fruit and Vegetable Wash - further processing</b> Class: PS Must be composed only of ingredients consistent with 205.605 and 205.606. <b>NOP Rule:</b> 205.605; 205.606</p>	<p><b>Allowed</b> Synthetic, Nonsynthetic  <i>Date: October 13, 2016</i></p>	<p><b>Limonene</b> Class: PS May be used only in post-harvest handling of raw agricultural commodities. See also FRUIT AND VEGETABLE WASH; CITRUS PRODUCTS; and D-LIMONENE. <b>NOP Rule:</b> Guidance 5023  <i>Date: October 13, 2016</i></p>

**Nitrogen** **Allowed**  
Class: PN Nonsynthetic, Nonagricultural  
Oil-free grades may be used as ingredient or processing aid. May also be used in post-harvest handling of raw agricultural commodities.  
**NOP Rule:** 205.605 (a); Guidance 5023  
Date: October 13, 2016

**Octadecylamine (CAS #124-30-1)** **Prohibited**  
Class: PN Synthetic, Nonagricultural  
**NOP Rule:** 205.105(c)  
Date: October 13, 2016

**Oxygen** **Allowed**  
Class: PN Nonsynthetic, Nonagricultural  
Oil-free grades may be used as ingredient or processing aid. May also be used in post-harvest handling of raw agricultural commodities.  
**NOP Rule:** 205.605 (a); Guidance 5023  
Date: October 13, 2016

**Ozone** **Allowed**  
Class: PN Synthetic, Nonagricultural  
May be used as ingredient or processing aid. May also be used in post-harvest handling of raw agricultural commodities.  
**NOP Rule:** 205.605 (b); Guidance 5023  
Date: October 13, 2016

**Pseudomonas** **Allowed with Restrictions**  
Class: PP Nonsynthetic, Nonagricultural  
May be used as a pesticide only in conjunction with the facility pest management practices provided for in paragraphs 205.271(a) and (b) and only if those practices are not effective to prevent or control pests alone. May also be used for post-harvest handling of raw agricultural commodities. Must use non-pathogenic strain.  
**NOP Rule:** 205.271(c); Guidance 5023  
Date: October 13, 2016

**Pyrethrum** **Allowed with Restrictions**  
Class: PP Nonsynthetic, Nonagricultural  
Pyrethrum is a natural botanical extract. It may be used as a pesticide only in conjunction with the facility pest management practices provided for in 205.271(a) and (b) and only if those practices are not effective to prevent or control pests alone. May also be used for post-harvest handling of raw agricultural commodities. See also BOTANICAL PESTICIDES.  
**NOP Rule:** 205.271(c); Guidance 5023  
Date: October 13, 2016

**Sodium Silicate** **Allowed with Restrictions**  
Class: PN Synthetic, Nonagricultural  
May only be used as floating agent in post-harvest handling for tree fruit and fiber processing.  
**NOP Rule:** 205.601(l)(2); Guidance 5023  
Date: October 13, 2016

**Tetrasodium Pyrophosphate** **Prohibited**  
Class: PN Synthetic, Nonagricultural  
**NOP Rule:** 205.105(c)  
Date: October 13, 2016

# OMRI Standards Manual

for review to USDA National Organic Program standards

## Part 2: Product Review Standards

This part outlines specific criteria used along with the National Organic Program (NOP) Rule at 7CFR Part 205, the NOP Program Handbook and the *OMRI Generic Materials List* to evaluate products for listing in the *OMRI Products List*. 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.

### 2.1 General Review Standards

#### 2.1.1 Synthetic versus Nonsynthetic Determination

NOP Rule §205.105(a) prohibit the use of “synthetic substances and ingredients, except as provided in NOP Rule §205.601 or §205.603.” OMRI uses the definition of ‘synthetic’ as it appears in NOP Rule §205.2 to determine if a given substance is synthetic or nonsynthetic. OMRI may use applicable documents in the NOP Program Handbook as guidance for making synthetic and nonsynthetic determinations.

#### 2.1.2 Agricultural versus Nonagricultural Materials

In several places, the NOP Rule applies differently to agricultural versus nonagricultural substances. OMRI uses the following criteria for making this distinction:

- 1 **Is the substance made from a plant, animal, or multi-cellular fungus?** If yes, then a substance advances to the next criterion; otherwise the substance is nonagricultural.
- 2 **Is the substance nonsynthetic?** If the substance is nonsynthetic, then the substance is considered agricultural; otherwise, a synthetic substance is nonagricultural.

OMRI also reserves the right to use applicable documents in the NOP Program Handbook to make agricultural versus nonagricultural determinations.

#### 2.1.3 Genetic Engineering

Under NOP Rule §205.105, “To be sold as ‘100 percent organic,’ ‘organic,’ or ‘made with organic (specified ingredients or food group(s))’, the product must be produced and handled without the use of: (e) Excluded methods...” The Rule defines excluded methods as “A variety of methods used to genetically modify or-

ganisms or influence their growth and development by means that are not possible under natural conditions or processes and are not considered compatible with organic production. Such methods include cell fusion, microencapsulation and macroencapsulation, and recombinant DNA technology (including gene deletion, gene doubling, introducing a foreign gene, and changing the positions of genes when achieved by recombinant DNA technology). Such methods do not include the use of traditional breeding, conjugation, fermentation, hybridization, in vitro fertilization, or tissue culture.”

In applying the Rule, OMRI considers that products used as inputs to organic production, handling, and processing must be produced and handled without the use of excluded methods. OMRI does not list products directly produced through genetic engineering. “Directly produced” means that products are derived from genetic engineering techniques, cannot be produced otherwise, and have a potential to express the trait that has been added by such techniques. Please refer to §10.4 for a more complete guide to OMRI's GMO determination process.

### 2.2 Additional OMRI Standards

In addition to the USDA organic regulations and the OMRI Generic Materials List, OMRI reviews products to additional standards that are identified on the OMRI website at [www.omri.org](http://www.omri.org). These additional standards include OMRI's interpretation of the organic regulations to ensure product compliance.

#### 2.2.1 Additional Standards for Crop Fertilizers and Soil Amendments

NOP Rule §205.203(c) requires that organic farmers “... manage plant and animal materials to maintain or improve soil organic matter content in a manner that does not contribute to contamination of crops, soil, or water by... pathogenic organisms [or] heavy metals...” OMRI has developed a system and standards to help farmers and certifiers avoid contamination from pathogenic organisms and heavy metals (more accurately referred to as elemental contaminants). While OMRI reserves the right to restrict or prohibit fertilizers that contain other contaminants, OMRI has chosen to focus on salmonella and fecal coliform as pathogenic indicators and has identified arsenic, cadmium and lead as the top priority elemental contaminants. **OMRI's pathogenic organisms and elemental contaminant standards are outlined on OMRI's website at [OMRI.org](http://OMRI.org).** OMRI will identify OMRI Listed products that test above established thresholds in the *OMRI Products List* with a cautionary statement that application to certified organic



farms **must** not contribute to contamination of crops, soil or water.

~~OMRI's pathogenic organisms and elemental contaminants standards are outlined on OMRI's website at OMRI.org.~~

## 2.2.2 Additional Standards for Pesticides

Both active and inert ingredients in pesticides must meet OMRI standards.

All pesticides are subject to the restrictions in NOP Rule §205.206 and inert ingredients must either be nonsynthetic or referenced in the relevant sections of the National List. OMRI does not review or list facility pest management materials that fall under §205.271(d) of the NOP Rule.

OMRI will not accept an application that simply lists "Inert Ingredients" as a component. OMRI listing is not a substitute for U.S. EPA or other government registration. ~~OMRI will identify OMRI Listed products that are not approved for use in the U.S. in the OMRI Products List with a cautionary statement that the product is not registered for use as a pesticide in the USA.~~

### ~~2.2.2.1 Multiple Formulations Under One Registration Number~~

~~OMRI does not list pesticides that have both NOP compliant and non-compliant formulations under the same registration identification, marketed under the same product name, or otherwise represented in a way that they cannot be distinguished by the user, including products registered under the same U.S. EPA registration identification number. Prospective applicants who suspect their products may fall into this category are advised to amend their labels, governmental registration, or product name; or re-register formulations they believe to be NOP compliant under a new governmental registration prior to applying to OMRI for product review.~~

## 2.3 Excluded Methods (GMO) Determinations

### 2.3.4 GMO Examples Run Through Decision Trees

#### Livestock:

2) **Animal Drugs** - Alternatively, if the product is considered an animal drug, the evaluation goes from 3A to 3D.

3D. Probiotics are natural, as are corn gluten meal, soybeans, and yeast used as carriers and substrate for microorganisms. Because the yeast is inactive, it is not truly a "probiotic" in its mode of action. Soybeans and corn would not be considered "feed" if the dosage was limited to the treatment of a specific illness. Probiotics administered for therapeutic and immune system stimulation purposes would be considered inoculants for the purposes of organic certification.

If the probiotic has health care label claims, it will be reviewed as a health care material, proceed to 3E.

3E. As long as none of the active probiotic organisms are ge-

netically engineered, the finished product is not considered a GMO. If any of the active organisms is genetically engineered, then the formulation is prohibited.

# OMRI Glossary of Terms

**post-harvest handling** – The act of handling raw agricultural commodities without further processing. Post-harvest handling activities preserve the essential form of the product. Examples of these activities include, but are not limited to: flotation, washing, sanitizing, cooling, packing, separation from foreign objects or plant parts (e.g., cleaning grain), removal of stems leaves or husks, and storage and pest control practices. "Further processing" includes actions that change the essential form of the product such as chopping, peeling, cutting, waxing, coating, drying, or combining with other ingredients. (NOP Guidance 5023)

**post-harvest substances** – Substances used in the post-harvest handling of raw agricultural commodities which are not further processed, either on farm or in handling facilities. This includes substances used for flotation, washing, sanitizing, cooling, storing, and for facility pest management. (NOP Guidance 5023)

**raw agricultural commodity** – Any food in its raw or natural state, including all fruits that are washed, colored, or otherwise treated in their unpeeled natural form prior to marketing (Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 321(r)). Substances used for coloring or coating must be permitted as per § 205.605 or § 205.606 of the National List. (NOP Guidance 5023)