ORGANIC TRADE ASSOCIATION

2028 Handling Sunset Materials (2026 Review)

Unanimous vote to renew
Majority vote to renew (10-14 votes)
Significant to remove (9 votes and below) / Vote to remove (4 votes and below)

Carrageenan | §205.605(a)

- **Uses in organic crop production:** Used as an emulsifier, thickener, and gelling agent with specific use as a vegan alternative to gelatin.
- **OTA Position:** Carrageenan currently meets the criteria for continued listing: it does not appear to be harmful to human health or the environment, is necessary for organic production, there are no viable alternatives, and is consistent with organic handling.
- **Public comments from last sunset review:** Comments were mixed with some in favor of relisting while others were opposed.
- **Board vote at last sunset review:** **Significant to remove.** During the 2016 sunset review, the Board recommended removal of carrageenan based primarily on lack of essentiality. The Board also considered some consumer controversy with the substance and its compatibility with a system of sustainable agriculture. The NOP did not move forward with the recommendation and hence carrageenan remained on the list**.**
  - At the last sunset review in 2021, the vote was also very close to the threshold to remove.
- **Subcommittee questions:**

1. Which organic products and uses currently rely on carrageenan?
2. What type of carrageenan (semi-refined / refined) and forms (kappa-, iota-, or lambda-) are being used in organic products?
3. Are carrageenan alternatives available to replace all uses?
4. Are there feasible methods to produce carrageenan as a non-synthetic (according to NOP 5033-1)?
5. Are there any concerns about ancillary ingredients used with carrageenan?
6. What restrictions or annotations might be appropriate for carrageenan? What new science on the safety or human health effects has emerged?

Agar-agar | §205.605(a)

- **Uses in organic processing/handling:** Used as a thickener, gelling agent, emulsifier, absorbent and other applications.
- **OTA position:** Agar-agar currently meets the criteria for continued listing: it does not appear to be harmful to human health or the environment, is necessary for organic production, there are no viable alternatives, and is consistent with organic handling.
- **Public comments from last sunset review:** Comments supported relisting.
- **Board vote at last sunset review:** **Unanimous vote to renew**
- **Subcommittee questions:**

1. What form(s) (nonsynthetic or synthetic) of agar-agar are currently in use in organic products?
2. Is agar-agar commonly used in organic products?

Animal enzymes | §205.605(a) Rennet - animals derived; Catalase - bovine liver; Animal lipase; Pancreatin; Pepsin; and Trypsin.

- **Uses in organic crop production:** Used to coagulate or curdle milk for production cheese or sour cream.
- **OTA Position:** Animal enzymes currently meet the criteria for continued listing: they do not appear to be harmful to human health or the environment, are necessary for organic production, there are no viable alternatives, and they are consistent with organic handling.
- **Public comments from last sunset review:** Comments supported relisting and noted the lack of organic sources.
- **Board vote at last sunset review:** **Unanimous vote to renew**
- **Subcommittee questions:**

1. What is the feasibility of producing animal enzymes from organic livestock? What would be barriers?
2. Are there any concerns regarding source materials from non-organic sources?
3. What challenges do certifiers encounter when verifying the origin and compliance of animal-derived enzymes?
4. What is the environmental impact of animal-derived enzymes vs. microbial/fermentation-based alternatives?
5. Are all of the animal enzymes listed necessary and being used in organic production?

Calcium sulfate - mined| §205.605(a)

- **Uses in organic crop production:** Used as a coagulant in the production of tofu, as a yeast food and dough conditioner, to adjust the mineral content of water, as a firming agent, and as a gelling agent.
- **OTA Position:** Calcium sulfate currently meets the criteria for continued listing: it does not appear to be harmful to human health or the environment, is necessary for organic production, there are no viable alternatives, and is consistent with organic handling.
- **Public comments from last sunset review:** Comments supported relisting, though some suggested annotating the listing to limit its use as a coagulant in tofu.
- **Board vote at last sunset review:** **Unanimous vote to renew**
- **Subcommittee questions:**

1. Are there any alternative coagulants or processing aids that could replace calcium sulfate without compromising quality or organic principles?
2. Are there specific applications where calcium sulfate is essential versus optional?
3. How would limiting or restricting its use impact your production processes or product offerings?

Glucono delta-lactone | §205.605(a) production by the oxidation of D-glucose with bromine water is prohibited.

- **Uses in organic crop production:** Used primarily as a coagulant in the production of silken tofu, and as a pickling agent, leavening agent, for pH control, and as a sequestrant.
- **OTA Position:** Glucono delta-lactone currently meets the criteria for continued listing: it does not appear to be harmful to human health or the environment, it is necessary for organic production, there are no viable alternatives, and it is consistent with organic handling.
- **Public comments from last sunset review:** Comments were mixed with most in favor of relisting, while some suggested an annotation to limit its use as a coagulant.

- **Board vote at last sunset review:** **Unanimous vote to renew**
- **Subcommittee questions:**

1. How widespread is the use of GDL in organic applications?
2. Is there evidence that GDL being used in organic applications may derive from genetic modification of any kind?
3. Have alternatives to GDL emerged in recent years that deliver the same product quality and functionality?
4. Is the lack of international acceptance significant?
5. How is organic silken tofu produced in the EU, Japan, etc. without the use of GDL?

Tartaric acid | §205.605(a) made from grape wine

- **Uses in organic crop production:** Used in a wide variety of products as an acidulant, pH control agent, chelating agent, stabilizer, anti-caking agent, and firming agent.
- **OTA Position:** Tartaric acid currently meets the criteria for continued listing: it does not appear to be harmful to human health or the environment, is necessary for organic production, there are no viable alternatives, and is consistent with organic handling.
- **Public comments from last sunset review:** Most comments supporter relisting, however some questioned whether production of organic wine has increased to a level that would support use of tartaric acid produced from it.
- **Board vote at last sunset review:** **Unanimous vote to renew**
- **Subcommittee questions:**

1. Is organic tartaric acid available in significant quantities?
2. Can tartrate salts be removed from wine made from organic grapes prior to addition of sulfur dioxide?
3. Are there other barriers to production of organic tartaric acid that could be lowered?

Cellulose | §205.605(b)

- **Uses in organic crop production:** Used as processing aid for filtration of juices, as an anti-caking agent for shredded cheese, and as a casing for hot dogs and sausages.
- **OTA Position:** Cellulose currently meets the criteria for continued listing: it does not appear to be harmful to human health or the environment, is necessary for organic production, there are no viable alternatives, and is consistent with organic handling.
- **Public comments from last sunset review:** Comments supported relisting.
- **Board vote at last sunset review:** **Unanimous vote to renew**
- **Subcommittee questions:**

1. For which products, if any, is cellulose currently essential for organic handling?
2. Which ancillary substances are used with cellulose, for the three allowable uses in handling (filtration, anti-caking, and regenerative casings)?
3. Is it still necessary to allow cellulose with ancillary substances, given that versions with no ancillaries are available?

Chlorine materials (Calcium hypochlorite, Chlorine dioxide, Hypochlorous acid – generated from electrolyzed water, Sodium hypochlorite) | §205.605(b) disinfecting and sanitizing food contact surfaces, equipment and facilities may be used up to maximum labeled rates. Chlorine materials in water used in direct crop or food contact are permitted at levels approved by the FDA or EPA for such purpose, provided the use is followed by a rinse with potable water at or below the maximum residual disinfectant limit for the chlorine material under the Safe Drinking Water Act. Chlorine in water used as an ingredient in organic food handling must not exceed the maximum residual disinfectant limit for the chlorine material under the Safe Drinking Water Act.

- **Uses in organic crop production:** Used as antimicrobial disinfectants and pesticides used to control harmful microorganisms including bacteria, viruses, and fungi in facilities and on equipment.
- **OTA Position:** Chlorine materials currently meet the criteria for continued listing: when used according to label directions they do not appear to be harmful to human health or the environment, they are necessary for organic production, there are no viable alternatives, and they are consistent with organic handling.
- **Public comments from last sunset review:** Comments supported relisting.
- **Board vote at last sunset review:** **Unanimous vote to renew**
- **Subcommittee questions:**

1. What alternatives are being used to chlorine materials?
2. Are all chlorine materials needed for handling purposes?
3. What ancillary substances are being used in chlorine materials?
4. Are clarifications of uses sufficiently clear in NOP 5026?
    a. Active ingredients vs all ingredients
    b. Differing review policies
    c. Where a sanitizer is used and reviewed. Direct contact versus non-food contact

Potassium hydroxide | §205.605(b) prohibited for use in lye peeling of fruits and vegetables except when used for peeling peaches.

- **Uses in organic crop production:** Used as pH adjuster, cleaning agent, stabilizer, thickener, and poultry scald agent.
- **OTA Position:** Potassium hydroxide currently meets the criteria for continued listing: it does not appear to be harmful to human health or the environment, is necessary for organic production, there are no viable alternatives, and is consistent with organic handling
- **Public comments from last sunset review:** Comments in support noted its essentiality in pH adjustment and potassium fortification. Those comments in opposition noted human health hazards from its corrosive properties, environmental impacts of from its disposal, and whether it is still essential for the peeling of peaches.
- **Board vote at last sunset review:** **Unanimous vote to renew**
- **Subcommittee questions:**

1. For which organic products or processes do you currently use potassium hydroxide, and what functional role does it serve?
2. Are heat or mechanical methods not sufficient for peach peeling? Are there alternatives?

Potassium lactate | §205.605(b) for use as an antimicrobial agent and pH regulator only.

- **Uses in organic crop production:** Used as an antimicrobial when added to meat and a pH adjustor.
- **OTA Position:** Potassium lactate currently meets the criteria for continued listing: it does not appear to be harmful to human health or the environment, is necessary for organic production, there are no viable alternatives, and is consistent with organic handling.
- **Public comments from last sunset review:** Comments supported relisting.
- **Board vote at last sunset review:** **Unanimous vote to renew**
- **Subcommittee questions:**

1. Are there any new technologies or ingredients that could replace the lactates?
2. What applications are Potassium and Sodium Lactate used in conjunction?

Silicon dioxide | §205.605(b) Permitted as a defoamer. Allowed for other uses when organic rice hulls are not commercially available.

- **Uses in organic processing/handling:** Used as an anticaking agent, a stabilizer in beer production, as a carrier, and as a defoaming agent.
- **OTA Position:** Silicon dioxide currently meets the criteria for continued listing: it does not appear to be harmful to human health or the environment, is necessary for organic production, there are no viable alternatives, and is consistent with organic handling.
- **Public comments from last sunset review:** Comments generally supported relisting with some suggesting the Board ensure the intent of the original petition reflects the current annotation.
- **Board vote at last sunset review:** **Unanimous vote to renew**
- **Subcommittee questions:**

1. What is your understanding of the current listing of silicon dioxide in regards to engineered nanomaterials? Does the current listing allow silicon dioxide as an engineered nanomaterial since the substance is synthetic and their prohibition is not specified in the annotation? Or are they prohibited? Explain your rationale.
2. Should the Subcommittee consider annotating to:
    a. Only allowed synthetic amorphous silica (SAS)?
    b. Only require the use of organic rice hulls when commercially available for products labeled "organic" and not for products labeled as "made with organic?"
3. The 2025 TR lists several alternatives (both nonagricultural, nonsynthetic and organic agricultural). Do you have experience in using any of these alternatives to silicon dioxide? If so, please explain the alternative used and specific function.

Sodium lactate | §205.605(b) for use as an antimicrobial agent and pH regulator only.

- **Uses in organic processing/handling:** Used as an antimicrobial when added to meat and a pH adjustor.
- **OTA Position:** Sodium lactate currently meets the criteria for continued listing: it does not appear to be harmful to human health or the environment, is necessary for organic production, there are no viable alternatives, and is consistent with organic handling.
- **Public comments from last sunset review:** Comments supported relisting.
- **Board vote at last sunset review:** **Unanimous vote to renew**
- **Subcommittee questions:**

1. Are there any new technologies or ingredients that could replace the lactates?
2. What applications are potassium and sodium lactate used in conjunction with?