



October 11, 2017

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Avenue, SW
Room 2642-So., Ag Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-17-0024

RE: Handling Subcommittee – 2019 Sunset Survey Summaries for 206.605 and 205.606

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment to the National Organic Standards Board (NOSB) on its 2019 Sunset Review process.

The Organic Trade Association (OTA) is the membership-based business association for organic agriculture and products in North America. OTA is the leading voice for the organic trade in the United States, representing over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's mission is to promote and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.

OTA thanks NOSB for carefully considering each handling input scheduled to sunset in 2019. It is critical that NOSB hear from certified handlers on whether these inputs are consistent with and essential to organic handling or whether there are other effective natural or organic alternatives available.

OTA is submitting the results to our electronic surveys that were created for each input under review for 2019 and collected for the first and second review period. The surveys were created and made available to **every NOP certificate holder** and include 7-10 questions addressing the **necessity (farm and livestock) or essentiality (handling)** of the National List input under review. The names of the companies submitting the information are confidential (not disclosed to OTA). To ensure wide distribution of the surveys beyond OTA membership, OTA worked with Accredited Certifying Agencies (ACAs) and OMRI to distribute the survey links to all of their clients as well as to targeted clients they know are using the inputs under review. OTA also worked through its Farmers Advisory Council (FAC¹) to help assist in distribution to NOP certified farmers.

¹ OTA's Farmers Advisory Council was established in 2013 to formalize two-way communication between OTA and member producers as well as regional organic producer organizations across the United States. Through dialog and input, FAC gives organic farmers a voice to directly influence OTA's policy and provides an avenue for OTA to share information and advocacy work with this stakeholder group.

The comments submitted at this time include everything we have received through October 11, 2017. We have received the following total responses:

- 205.605(a) Non-synthetic, Non-agricultural: 19 + 10 (new as of 10/10)
- 205.605(b) Synthetic, Non-agricultural: 17 + 9 (new as of 10/10)
- 205.606 Agricultural: 5 + 3 (new as of 10/10)
- **Total: 63**

National List Criteria

Materials that have been placed onto the National List for use in handling should remain on the National List if 1) they are still essential to and compatible with organic production and handling practices; 2) there are no commercially available alternative materials (natural, organic) or practices; and 3) no new information has been submitted demonstrating adverse impacts on humans or the environment (OFPA SEC. 2118 [7 U.S.C. 6517 and 6518] National List). Furthermore, decisions must be transparent, non-arbitrary, and based on the best current information and in the interest of the organic sector and public at-large.

Based on survey results and/or feedback received directly by members, the following materials meet the essentially criteria listed above. We are not aware of any new information since the 2017 review regarding the availability of alternatives or adverse impacts on humans and on the environment. We have included the information received during the 2017 review as well.

Non-agricultural non-synthetic (205.605(a) Non-synthetic (non-agricultural): Allowed as ingredients in or on processed products labeled “organic” or “made with organic (specified ingredients or food group(s)).

Substance	Survey Information
Bentonite	<p>2019 Sunset Responses</p> <p>Handler Comment: Used as a filtering agent for protein stability in white wines. Certified for 18 years. Selling products in 50 states. It is a naturally occurring volcanic clay that carries a slight negative charge. The clay, when swelled with water reacts with unstable proteins in wine that carry a slight positive charge. These unstable proteins then precipitate out and are removed either by racking or filtration. This process prevents protein hazes in wines that may have been subjected to high temps during storage and/or transport. The bentonite is always removed before bottling and there is no residual left over in finished bottled wine. There may be alternatives but they would most likely be man-made and or highly processed natural material. Bentonite is mined and used unadulterated, therefore its use in Organic processes should continue. We have not conducted research on other alternatives. Bentonite is the best Organic material for the above stated use. Loss of this substance would result in a lower quality, unstable product. 10- Critically essential to organic processed products.</p> <p>Handler Comment: Used as a filtering aid in organic oils. Certified for 15 years. Selling products in 50 states and other countries. No organic alternatives are available. Loss of this substance would result in inferior appearance of products and possible rancidity and ultimately lost sales. 9- Critically essential.</p> <p>Handler Comment: Used as a stabilizer and filter aid for hard cider and wine. Certified for 12 years. Selling products in California. No organic alternatives are available. Loss of this substance would compromise quality, cost and shelf life of products and likely removal from organic status. 10-</p>

	<p>Critically essential.</p> <p>Handler Comment: In the wine industry, bentonite is used to absorb proteins from white or rose wines. If not removed, these proteins may cause a haze or precipitate in the wine. Although the treatment is called "heat stability," this comes from the testing method. The wine may develop the haze in the marketplace without having been exposed to excessive heat or mishandling. Certified for 13 years. Selling products in California. Unaware of any allowed alternatives, although this is an area of research. Organic is not available as far as I know. We did, about ten years ago, try a protease enzyme that was supposed to decrease the need for bentonite. (Crystalzyme). It did not work very well and I believe they have stopped making it. Grapes have proteins and they become unstable in alcoholic solution. Addition of tannins can help sometimes. I don't see how we could send white wines into the marketplace without this material. The haze can be really ugly. Loss of this material would be devastating for the organic program. 10- Critically essential.</p> <p>New (fall 2017) Handler Comment: Used as a filtering aid for juice concentrate/processing. Company has been certified for 22 years. National sales and some export. Function is as a filtering agent. Bentonite does not have any organic alternatives and is one of a few filtering aids needed for specific uses. Loss of this material would result in difficulty processing organic fruit juice and concentrates. High risk for economic effects. The essentiality of this substance on a scale of 1-10 is 10.</p> <p>2017 Sunset Responses</p> <p>Handler Comment: Used as a filtering agent in our certified juice concentrates. Certified for 8 years and selling products nationwide and exporting. There are no alternatives for this product/process. If the material is removed, we could not filter our concentrates. 9- Critically essential.</p> <p>Handler Comments: Bentonite is used for organic juice concentrate processing as a filtering aid. No other natural or organic sources are known with the same specific function. This input is rated as critically essential to organic processing. The loss of allowance would result in lost quality and loss of sales.</p>
Diatomaceous Earth	<p>2019 Sunset Responses</p> <p>Handler Comment: Used as a filtering aid in organic wine processing. Certified for 18 years. Selling products throughout all 50 states. It is used as a filter aid when filtering high solids grape juice lees and wine. There are other filtration alternatives and processes that can filter high solids juice and/or wine, however, they are relatively new to the industry and very expensive. We hope to eventually replace diatomaceous earth with one of these technologies, but for now DE is an excellent cost-effective solution for filtration that has been used for a long time. DE is a natural organic material. It is mined from the earth and is not processed other than mechanical grinding/sieving. While we have conducted research trials on alternatives, we still feel that DE should remain an approved material for use in organic wine processing until viable alternatives are widely available. With respect to alternative management practices, grape juice is inherently high in solids and microorganisms. Filtration is essential to high quality winemaking. Loss of DE from the National List would result in a lower quality product. Other technologies are cost prohibitive for smaller winemaking operations. DE is critical to our operation (9 out of 10 for essentiality).</p> <p>Handler Comment: Used as a filtering aid in organic oils and fats. Certified for 25 years. Selling products throughout the USA at manufacturer's locations. Canada, Australia, Southeast Asia. D.E. is the gold standard for oil filtration. Unaware of any organic alternatives. It is critical to our operation (10 for essentiality).</p> <p>Handler Comment: Used as a filtering aid or our organic oils. Certified for 15 years. Selling products throughout in all 50 states. Possibly bentonite as an alternative, but diatomaceous earth works better for most of our oils. Loss of this material would result in decreased appearance and possible rancidity and loss of sales. It is critical to our operation (10 for essentiality).</p> <p>Handler Comment: Used as a filtering aid or our organic flavor extracts. Certified for 10 years.</p>

	<p>Selling products in multiple states and countries. To the best of our knowledge, there are no replacements or alternatives. We haven't found anything to conduct trials on. Possibly bentonite as an alternative, but diatomaceous earth works better for most of our oils. If this material were removed from the National List, we would have to remove several items we that are currently certified. If we have to remove several items that are currently selling, that would hurt us economically. Currently organic sales are approximately 10-15% of our business and are growing each year. The essentiality of this substance on a scale of 1-10 is 10.</p> <p>Handler Comment: Used as a filtering aid in organic honey and maple syrup. Certified for 12 years. Selling products in 30 states. No replacements or alternatives are allowed. Bag filtering could be used but that would cost more and take much more time and the honey does not have the bright shelf appeal. Loss of this material would result in a large amount of material that needs to be disposed of in a landfill. The essentiality of this substance on a scale of 1-10 is 9.</p> <p>New (fall 2017) Handler Comment: Used as a filtering aid for fruit juice and concentrates. Company has been certified for 22 years. National sales and some export. No alternatives to our knowledge. Loss of this material would affect the quality of our products. There would be a high economic loss and if we could not use this material. The essentiality of this substance on a scale of 1-10 is 10.</p> <p>2017 Sunset Responses</p> <p>Handler Comment: Used as a filtering aid in our certified organic juice products. Certified for 18 years and selling products nationwide and exporting. There are no alternatives for this product/process. If the material is removed, we will no longer produce organic juice concentrates. 10-Critically essential.</p> <p>Handler Comments: Diatomaceous earth is used to remove insoluble and impurities in solutions. We do not use this directly but it is used by some of our suppliers. Diatomaceous earth improves the quality, flavor and appearance of ingredients without leaving a residual in the ingredient. Applications where used include vinegar and sugar processing.</p> <p>Handler Comments: Used as a filtering aid for juice concentrates. It's used in combination with other filtering aids such as bentonite and perlite. All have a specific use and must remain on the National List. There are no other alternatives. This is critically essential to organic processing.</p> <p>Handler Comments: Used for organic honey filtration (processing aid). Operation has been certified for six years. Products are sold in 31 states. Currently no foreign export. Not familiar with any alternatives. It is possible to do a strained honey product without the Diatomaceous earth but it does not have the same clarity as filtered honey and crystallizes faster. Currently our entire organic honey customer base is for filtered organic honey. Without this material, we would no longer be able to process filtered organic honey. Diatomaceous earth is critically essential to our operation.</p>
Nitrogen	<p>2019 Sunset Responses</p> <p>Handler Comment: Used in shelf stable low acid foods (including infant food) and powdered infant formula to purge oxygen from the container to prevent degradation over shelf life. Certified for 10 years. Selling products in 50 states. Alternatives? No. Alternative management practices? None. The essentiality of this substance on a scale of 1-10 is 10.</p> <p>Handler Comment: Used as a nitrogen flush to displace oxygen; stabilizes products. Certified for 20 years. Selling products in 50 states. Not aware of any alternative materials or practices. Prolongs shelf life of product making it more desirable to resellers. Loss of this material from the NL would have environmental impacts - More waste and need to increase production, causing more production to be necessary and increasing costs to consumers. It saves cost to us and the consumer in the long run. The essentiality of this substance on a scale of 1-10 is 9.</p> <p>Handler Comment: Used as a refrigerant and cleaning agent to remove oil residue. Primarily in cooling products as well as flushing oil systems for cleaning. Certified for 25 years. Producing products throughout the USA at manufacturer's locations. Canada, Australia, Southeast Asia. What alternative cryogenic liquefied gasses are available? Nitrogen is 78% of the atmosphere. Without this</p>

material, we could not cool products rapidly. Could not clear oil residue from processing equipment. We would need to need to use a more hazardous refrigeration or cleaning product. Loss of this material would require us to redesign the entire manufacturing operation. The essentiality of this substance on a scale of 1-10 is 10.

Handler Comment: Used as a nitrogen flush to displace oxygen and prevent oxidative rancidity for organic oils, seeds and beverages. Certified for 15 years. Not aware of any alternative materials or practices. Producing products in 50 states and other countries. Loss of this material would result in rancid products and loss of sales. The essentiality of this substance on a scale of 1-10 is 10.

Handler Comment: Used as a packaging aid for organic leafy greens and produce. Certified for 30+ years. Producing products in all of the United States Canada, Mexico, Japan, Taiwan, Korea, and Thailand. Produce has an extremely short shelf life, but a nitrogen flush can help maintain the quality of the product by preventing oxidation. Nitrogen is a non-synthetic non-agricultural material. There are no organic alternatives, which can reduce oxidation in produce. Organic produce would have a much shorter shelf life with the allowance of this material. We would have to discard more organic produce because the perishability would increase. The essentiality of this substance on a scale of 1-10 is 9.

Handler Comment: Used to keep the head space in cans rigid AND keeps product from oxidizing. Canned coffee and concentrate products. Certified for 5+ years. Producing products in all 50-and some export to Asia. Not very many alternatives available and are more expensive-limited dosing systems available as well. Quality also suffers under alternatives they are not as effective. No organic alternatives. Cans would not be able to be shipped via truck and railroad as cans on the bottom would be crushed. As well, concentrate would suffer with 'cheesy' aroma and flavor as oxidation in the bottle on the shelf occurs. Loss of this material would have economic effects that would be high and shelf life would have to be reduced which might cause some retailers to no longer carry the product. The essentiality of this substance on a scale of 1-10 is 9.

Handler Comment: Removes oxygen before sealing to prevent oxygenation of food. Used for our organic canned soups, beans and vegetables. Certified for 7 years. Producing products nationally available, not exported. No alternatives to my knowledge. Without this material quality would diminish as colors/flavors oxygenate. May also force us to use preservatives. Preservatives bring their own set of concerns. Addition of chemical preservatives could raise costs. The essentiality of this substance on a scale of 1-10 is 10.

New (fall 2017) Handler Comment: Used for ground herbs and spices that are sold alone or are used as ingredients in seasoning mixes. Company has been certified for 20+ years. Products are sold throughout the U.S., Mexico and Canada. The nitrogen is used to flash freeze the spices during grinding. This reduces the heat caused by the grinding process, allowing for greater retention of color, flavor and aroma. There are not alternatives that are effective. Loss of the material from the National List would result in reduced quality and marketability. Reduced competitiveness compared to conventional spices. Negative economic effects would be experienced if nitrogen were no longer allowed to be used and loss of organic product. Ground spices would be lower in quality and would be less competitive with conventional spices. The essentiality of this substance on a scale of 1-10 is 8.

New (fall 2017) Handler Comment: Used for organic Walnut packaging. Company has been certified for 12 years. Selling in all 50 as far as we know and currently exported to Canada. The nitrogen gas flush in the bag helps provide a dry, oxygen free environment, which prolongs shelf life and reduces rancidity. Alternatives include Air. Widely available on Earth (and mostly organic and natural) is ~78% Nitrogen. Unfortunately the ~21% Oxygen causes problems with rancidity. We currently use air, but would like to switch to a modified atmosphere "Nitrogen Flush" once we have our sealed bag line up and running. Refrigeration is currently used, but hard to force once the product leaves the plant. Loss of this material would result in shorter shelf life of our product. No environmental effect if it is not allowed. However, the alternative of forced refrigeration increases energy consumption and food waste if not properly performed. The economic impact if the material is

removed is that it closes specific markets to us (i.e. anywhere other than North America) as well as larger retail operations. The essentiality of this substance on a scale of 1-10 is 3. No label.

New (fall 2017) Handler Comment: Used for Shelf-stable soup, stews, beans, grains and sauces. Company has been certified for 7 years. Selling in all 50 states. Function is to remove oxygen before sealing, improving quality and color. No alternatives to our knowledge. Removing Nitrogen could require the introduction of other compounds on the National List that are less innocuous. Loss of this material would reduce the quality of product, and might require the addition of compounds that consumers would not like. Could substantially impact sales.

The essentiality of this substance on a scale of 1-10 is 9.

New (fall 2017) Handler Comment: Used for bagged animal feed. Company has been certified for. Selling in 48 states. No international currently, but planned for export in next two years. It is used to flush oxygen to allow for longer product life in sealed bag. We would be happy to discuss any as no alternatives, including management practices, have been found.

Loss of this material would decrease product life and overall quality. It will put organic feed at a disadvantage over conventional bagged feed and make wider adoption of organic products more difficult. The essentiality of this substance to the continued success of our business on a scale of 1-10 is 8.

New (fall 2017) Handler Comment: Used for manufacturing of aseptic juices and some canned product as a processing aid for packaging. Company has been certified for 22 years. National sales and some export to Canada. Not aware of any alternatives. We could not produce our products without this material - quality affects. We would not sell the organic products that require the use of nitrogen. The essentiality of this substance on a scale of 1-10 is 10.

New (fall 2017) Handler Comment: A nitrogen flush is commonly used to displace and manage oxygen levels for our organic aseptic packaged products. Several of our organic vegetable oils (i.e. flaxseed, chia) require a nitrogen flush for both refrigerated and shelf stable offerings. It serves as an important protective measure against oxidation, which may adversely affect stability and Omega-3 levels. No suitable alternatives have been identified.

New (fall 2017) Handler Comment: Used in our dietary supplements. Selling in all 50 states and Canada. Nitrogen may be used in the production or packaging of oxygen-sensitive products i.e. N2 sparge to remove oxygen from water in preparing a Vitamin C solution; N2 blanket during blister packing; etc. No known alternatives that meet GMP specifications. Loss of this material would remove the ability for our Vitamin C products to be shelf stable. Would need to remove organic certification from the relevant products. The essentiality of this substance on a scale of 1-10 is 10.

2017 Sunset Responses

Handler Comment: Producing shelf-stable, thermally processed products. Certified for five years. Selling products in all 50 states. Use preserves quality or product by reducing oxidation. There are no alternatives to our knowledge. Quality would diminish through oxidation resulting in reduced consumer preference for our products. Critical to organic processing.

Handler Comments: Liquid nitrogen is used in cryogenic cooling/freezing in the frozen food industry. Nitrogen is currently used by some of our suppliers. The nitrogen dissipates into the air after freezing and does not remain in the food product.

Handler Comments: Used as a packaging aid for canning. It keeps the can firm by displacing air. Products are sold throughout the states. There are no alternatives available or other management practices that would work in place. Nitrogen is critically essential our organic business.

Handler Comments: Used for IQF tomatoes. Company has been certified for 13 years. Products are sold in 10 states and exported to other countries. Used to (flush) replace oxygen. No known alternatives or practices. Loss of this material would result in discoloration of tomatoes during storage. Product color will be refused by customer. Significant reduction to shelf life. We would likely stop the production of organic. Essential – critical.

	<p>Handler Comments: Used as a packaging aid for canning. Keeps the can firm by displacing air. Certified for 13 years. Products are sold throughout U.S. and Canada. No known alternatives or practices. Loss of this material would result is loss of quality and thus loss of sales. Essential – critical.</p>
Sodium Carbonate	<p>2019 Sunset Responses</p> <p>Handler Comments: Used as a leavening agent, neutralizer in baked goods, ice cream, frozen novelties, soy base extraction. Certified for over 25 years. Selling products in all states. Have not found a suitable alternative. If we could no longer use this substance, we would stop making these products. Sodium carbonate is critically essential to the processing of our products (10).</p> <p>Handler Comments: Used as a pH adjuster in organic laundry detergents. Certified for 8 years. Selling products in all states. No organic or natural alternatives are available. We have not conducted research on alternatives because we do not know of any. If we could no longer use this substance, the product would not function as it needs to be maintained in a higher pH environment. Loss of this substance would be devastating to our company (product discontinuations, layoffs). Sodium carbonate is critically essential to the processing of our products (10).</p> <p>Handler Comments: Used to adjust pH and (when combined with organic acids) to produce a fizzy sensation in confections. Certified for 2 years. Selling products 50 U.S. states, Canada, and Asia-Pacific countries. Organic or natural alternatives? There are alternate salts that have similar functionality, but they are not currently on the National List. Not aware of anything to test or trial. No alternative management practices that could be used. If no longer allowed, it would not be possible to produce a fizzy organic confection. This substance is essential to processing the organic products.</p> <p>New (fall 2017) Handler Comment: Used in various organic bakery products and mixes as a leavening agent. No suitable alternatives have been identified.</p>

205.605(b) Synthetic: Non-agricultural (non-organic) substance allowed as ingredients in or on processed products labeled “organic” or “made with organic (specified ingredients or food group(s)).

Acidified sodium chlorite	<p>2019 Sunset Survey Responses</p> <p>Handler Comment: Used as a sanitizer for a wide variety of organic products. Certified for many years. Selling products to all 50 states and we export to Canada and a few other countries. There are a few sanitizers available but each works best in certain applications. The requirements for sanitary conditions continue to increase and consumers benefit from this change. To meet these increasing requirements, we need every sanitizer in our toolbox. There are sanitizers which have been developed that are more effective than the ones allowed with organic but have not been petitioned for addition to the National List so we are already operating at a disadvantage. There are no organic alternatives for sanitizers. Some have suggested we use herbal extracts, which are not compatible from a flavor or scent perspective with food production and have been demonstrated to not be as effective as the sanitizers currently in use. Would not meet current food safety requirements. Presumably, we' would have more product that did not meet our requirements and which we'd have to throw away. Acidified sodium chlorite is essential for our organic processing. On a scale of 1 -10 it is 10, for critical.</p> <p>Handler Comment: Used for processes including the cleaning and sanitizing of equipment used in milling, sorting, packaging of organic raw beans and in processing organic cooked and dehydrated bean products. Certified for 4 years. Products are sold in 40 different states. Not currently exported out of the country. Sodium hypochlorite is used for utensil and equipment sanitizer. It also appears as an ingredient in approved cleaners for equipment surfaces. Chlorine products are the most effective, available and economical product for cleaning and sanitizing. They are crucial for food safety. The efficacy of Sodium Hypochlorite is widely known and documented. Discussions with sanitation chemical suppliers have told us that there are no other natural or organic alternatives that will have the same effect in cleaning and sanitizing our surfaces. Food Safety must be paramount in the food industry. We may not be able to produce organic products anymore if we cannot effectively clean the</p>
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	<p>cooking and dehydrating equipment. Potential for pathogen growth as well as other bacterial issues. The economic effects would be severe should these chemicals be removed from the approved list. Essential and critical (10).</p> <p>New (fall 2017) Handler Comment: Acidified Sodium Chlorite is used as an antimicrobial in our poultry “ready-to-eat” facilities. It is essential to our pathogen control strategy and is highly effective.</p> <p>2017 Sunset Responses</p> <p>Handler Comment: Certified for at least 11 years. Selling products in all states and exported to Hong Kong and Canada. ASC is used as a processing aid/sanitizer to control microbes on the surface of meat, poultry, seafood and fruits and vegetables. There are no suitable alternatives. We believe ASC is the best antimicrobial intervention for organic broiler processing. We have tested other alternatives but they are not as effective in controlling salmonella and campylobacter on fresh chicken carcasses and parts. Alternative management practices? None that will be as effective in meeting the USDA pathogen reduction program. Loss of this material would result in reduction of available organic poultry to market and economically a reduction in organic poultry revenue. Essentiality? 10 Critical.</p> <p>Handler Comments: ASC is under consideration as a sprouting seed disinfection treatment, as a possible alternative to the 20,000 ppm calcium hypochlorite that is currently recommended by FDA. If ASC is taken off the allowed list, there will be no incentive to consider it as an alternative to 20K chlorine in organic production. In terms of “allowed equally effective” organic or natural alternatives, I don’t know of any presently. There has been some promising peer-reviewed research on competitive exclusion, but presently no “allowance” for this approach. There aren’t any alternative management practices, not to my knowledge; seed can become contaminated from a number of environmental sources, even using GAPs. We are not presently using it, since it has not been approved for our specific use by EPA or FDA, but it is under consideration. If we could use it, research results suggest it could significantly enhance sprout safety. If it is not allowed, then things will stay pretty much the way they are now: periodic recalls, sporadic outbreaks, two major retailers not carrying sprout products, and generally lousy safety image. ASC is effective at 200 ppm, compared to 20,000 ppm calcium hypochlorite, which is not as effective. Allowance of ASC would arguably result in a lower negative environmental impact. The sprout industry continues to be economically depressed by high-profile outbreaks and recalls. The use of ASC could improve confidence, and contribute to significant growth of the sprout industry. Essential to critically essential.</p>
Carbon dioxide	<p>2019 Sunset Survey Responses</p> <p>Handler Comments: Used to chill products rapidly. Used for our organic bakery products. Certified for 15 years. Products sold through the United States. There are no natural or organic alternatives. Should we no longer be allowed to use this substance, we would have overcooked unacceptable products that would result in lost sales. This product is essential to our organic processed products (9).</p> <p>Handler Comments: Used in our grain storage. Certified for 45 years. Selling to products in 50 states. No suitable alternatives or management practices we know of. Immediate use of grain after harvest which is not practical since we harvest once a year and products are produced all year. CO2 is essential. On a scale of 1 -10 it is 10, for critical.</p> <p>New (fall 2017) Handler Comment: Used for carbonation for juice beverages. Company has been certified for 22 years. National sales with some export to Canada. No alternatives to our knowledge. Without this material we could not make organic carbonated beverages. The essentiality of this substance on a scale of 1-10 is 10.</p> <p>New (fall 2017) Handler Comment: Carbon dioxide is used in all of our modified atmosphere packaging, as well as a coolant (dry ice and gas) throughout all of our processes used at our poultry processing facilities.</p> <p>New (fall 2017) Handler Comment: Used in our dietary supplements including herbal extracts. Selling in all 50 states and Canada. Carbon Dioxide is extensively used to extract soluble compounds from organic herbs. Water extraction can be used but not at the scale or with the same consistency or</p>

	<p>across as many. We would not be able to continue to produce or include organic herbal extracts without this material. We would need to reformulate or remove organic certification. The essentiality of this substance on a scale of 1-10 is 10.</p> <p>2017 Sunset Responses Handler Comment: Used in organic carbonated beverages. Certified for 18 years and selling products nationwide. There are no alternatives. We would not sell carbonated beverages if removed. 10- Critically essential. Handler Comments: Carbon dioxide is used by some of our suppliers in the control of pests in the storage of grains and rice. It is used both for freezing foods and for accelerated cooling, a critical food safety procedure. The carbon dioxide dissipates into the air after the cooling/freezing is complete and does not remain in the food product. We do not currently use carbon dioxide in manufacture but would like to have this as an option in the future should we need additional cooling on new products. Handler Comments: Used as a processing aid (carbonation) in our carbonated Ready to Drink (RTD) beverages. Company is headquartered in Northern California. We utilize co-packing facilities in California, Oregon, Florida and Pennsylvania. Our products have national distribution. Several of our RTD products are also sold in Canada and Norway. No alternatives are available. If carbon dioxide were removed, organic product effects would all be negative. It would require re-formulation of our entire line of RTD products as the product could not exist in its current form. Our entire process for producing, shipping and selling our RTD products would need to change and could become extremely expensive, possibly rendering the product obsolete. This material is critically essential to our operation.</p>
Chlorine materials	<p>2019 Sunset Responses Handler Comment: Used as a sanitizer for food safety and cleaning surfaces. Certified for 25 years. Selling products throughout the USA. There are no organic alternatives or fully effective natural alternatives. Regardless of alternatives, Chlorine is critically essential to the continued success of our organic products (10). Handler Comment: Used as a sanitizer. Chlorine-based sanitizers are ubiquitous in manufacturing. Certified for 25 years. Selling products throughout the USA at manufacturer's locations. Canada, Australia, Southeast Asia. There are no organic alternatives or fully effective natural alternatives. Regardless of alternatives, Chlorine products are well documented as an effective agent to eliminate pathogens on surfaces, equipment, and tools. Loss of this material in organic handling could result in foodborne pathogen outbreaks, recalls, lawsuits, etc. Chlorine is critically essential (10). Handler Comment: Used as a sanitizer in organic poultry processing to control microbial growth in water systems. Certified for 15 years. Selling products throughout all 50 states. Sodium hypochlorite is an alternative. However, it is too corrosive to use in water lines. There are no effective natural or organic alternatives. Loss of this material in organic handling could result in microbial growth and food safety problems. Facilities may need to close and there would be major economic effects. Chlorine is critically essential (10). Handler Comment: Used as a sanitizer for a wide variety of organic products. Certified for 20 years. Selling products throughout all 50 states. Sodium hypochlorite is an alternative. However, it is too corrosive to use in water lines. There are no effective natural or organic alternatives. Chlorine is critically essential (10). Handler Comment: Used as a sanitizer for leafy greens and produce. Certified for 30+ years. Selling products in all states and Mexico, Canada, Japan, Taiwan, Korea and Thailand. Food safety is critical for our products. There are very few sanitizers available for direct food contact. Chlorine is an effective disinfectant in both post-harvest and processing wash water, as well as on food-contact surfaces. There are no effective natural or organic alternatives. If we are unable to ensure the food safety of our product, we would be unable to sell it. Chlorine is critically essential (10).</p>

Handler Comment: it is not used in the finished product; it is used to sanitize the environment that the product is made in. Certified for 15+ years. Selling products across the country. Peracetic acid is used as an alternative for some items but not for certain metal items. There are no alternative management practices that would eliminate the need for this material because raw seeds and grains will always have microbial loads. With FSMA coming, and the growing focus on prevention of food risk, it's going to be tough if this is removed from the options as a sanitizer. There are no effective organic alternatives. Chlorine is critically essential (8).

New (fall 2017) Handler Comment: Chlorine bleach is used as a sanitizer on food contact surfaces. Company has been certified for 20+ years. Selling throughout the United States, Mexico and Canada. Alternatives are somewhat available, but with concerns of safety of personnel handling the materials. Alternate management practices would not eliminate the need for the sanitizer. Other sanitizers are more expensive and have greater safety concerns. If chlorine were not allowed to be used, there would be negative economic health effects. The essentiality of this substance on a scale of 1-10 is 9.

New (fall 2017) Handler Comment: Used as a sanitizer in our process facility. Company has been certified for 22 years. National sales and export to Canada. PAA is an alternative in some instances. Food safety always is the primary goal. There is no alternative that completely eliminate the need for chlorine. Loss of this material would result in food safety issues. We cannot run a plant without proper materials to clean and sanitize. The essentiality of this substance on a scale of 1-10 is 10.

New (fall 2017) Handler Comment: Chlorine materials are definitive components in almost all of our cleaning and sanitizing compounds used in all of our poultry processing facilities and are crucial for food safety. We also would utilize chlorine materials as a backup intervention if anything ever happened to our main intervention system (PAA).

New (fall 2017) Handler Comment: Used for Cleaning of dairy processing equipment. Certified for 10 years. There are no alternatives that have the same functionality. Loss of this material could negatively impact food safety and that would be severely damaging to our business. The essentiality of this substance on a scale of 1-10 is 10.

2017 Sunset Responses

Handler Comment: Used as a sanitizer in many of our certified organic manufacturing facilities. Certified for 18 years, selling products nationwide and exporting. There are some alternatives but chlorine is essential when alternatives are not as effective. GMP¹ - food safety requires sanitation. We would not sell organic products if removed. 10- Critically essential.

Handler Comments: Calcium hypochlorite, chlorine dioxide and sodium hypochlorite are used as algicides, disinfectants and sanitizers in the handling and processing of organic crops. These are critical for food safety purposes. Along with our own use in sanitation, our suppliers use chlorine in the cleaning of equipment and food contact surfaces, again a critical food safety activity.

Handler Comments: Used as a sanitizing agent in most organic processing facilities. Other sanitizers do not work as well. Poor sanitation could lead to serious illness. Dead consumers do not buy organic products. Critically essential.

Handler Comments: This ingredient is used in our cleaner and, along with sodium hydroxide, provides a very high quality cleaning of the system. No alternatives are available that meet the same functionality and quality of cleaning that is possible with this ingredient. Any quality issue due to a lesser quality of cleaning would affect all products at our facility. Any quality or food safety issue due to using a lesser quality alternative ingredient would devastatingly affect the economic health of our facility. No alternatives exist that have proven to have the log reductions needed. Good Agricultural Practices (GAP) can help, but are not a 100% guarantee to prevent contamination from pathogens. Without this material, we would have difficulties complying with FSMA and more consumers could become ill. Critically essential.

Handler Comments: SODIUM HYPOCHLORITE is used to control the PH in water for a triple wash system that washes cut product, which works with Citric acid. We conduct 10 days' shelf testing

	<p>per customers' request and products not washed do not survive 8-10 day study. With chemicals, we have had 12-15 days good, edible shelf life. Without the listing for chlorine, product might not make it to 10-day shelf life as required by each vendor and would need to change to 6-day shelf life for some products.</p>
<p>Magnesium chloride</p>	<p>2019 Sunset Survey Responses</p> <p>Handler Comments: Used in certified organic dietary supplements for the purpose of supplementing magnesium in the diet. Certified for over 10 years. Products sold in all 50 U.S. states and Canada. Allowed alternatives? No organic minerals exist as they are not a product of agriculture and are often mined substances, purified and standardized for use in dietary supplements. These may be considered a natural substance. Alternative management practices? No, this exact substance is required by the body and is considered an essential nutrient. Should we no longer be allowed to use this substance, we would not in good conscience create multivitamins or magnesium supplements that do not include magnesium as a nutrient, due to the stark deficiencies across the population. We would simply forego organic certification in most cases. Lacking organic certification would have financial fallout, as the food-based dietary supplement sector is health and growing. People look for the seal. On a scale of 1 – 10, this material is critically essential (10).</p> <p>Handler Comments: Used as a coagulant in certified organic tofu to make soft tofu. Certified for 15 years. Selling in all 50 states. There are not allowed organic or natural alternatives. Should we no longer be allowed to use this substance, our products would have unacceptable texture that would lead to loss of sales. On a scale of 1 – 10, this material is critically essential (10).</p> <p>New (fall 2017) Handler Comment: Used in dietary supplements, multivitamins as an essential source of magnesium. Company has been certified for 10+ years. Selling in all 50 states + Canada. No alternative substitutes. We would have to remove an essential nutrient from multivitamins or remove organic certifications The essentiality of this substance on a scale of 1-10 is 10.</p> <p>2017 Sunset Responses</p> <p>Handler Comments: Companies selling to 50 states and many other countries. Certified from 13 to 15 years. Magnesium chloride is used in the manufacture of tofu to cause the soy protein to curd and to develop firm texture. Other calcium and magnesium-based products do not give the same result. The magnesium chloride we use is naturally derived from seawater. Loss of this material would cause organic tofu production to go away. The texture would be horrible. We would go out of business. Critically essential to organic tofu processing.</p>
<p>Potassium acid tartrate</p>	<p>2019 Sunset Survey Responses</p> <p>Handler Comments: Used as a leavening agent in many organic bakery products and many baking mixes. We are not aware of any organic or natural alternatives. Loss of this material would result in poor leavening and unacceptable products resulting in discontinued products that would have a negative economic impact. Essential to organic processing. (10 on a scale of 1 to 10)</p> <p>2017 Sunset Responses</p> <p>Handler Comments: Used in many types of baked goods. Sold in 50 states and other countries. Certified for over 10 years. Leavening agent. Other acids have undesirable effects in the products. Loss of this material would result in impaired quality and marketability of products and loss of sales. Critically essential.</p>
<p>Sodium phosphates</p>	<p>2019 Sunset Responses</p> <p>Handler Comments: Used in Shelf Stable Liquid Cheese Sauce. Certified for 18 years. Products sold in all 50 states + Canada. Sodium phosphate has two functions in shelf stable cheese sauce. First, it acts as an emulsifier by binding to the calcium in the casein protein to allow it to dissolve and integrate into cheese sauce with fat, protein, and water. Second, it adds sodium to the finished product, which reduces the water activity and acts as an antimicrobial in the final sauce allowing it to be shelf-</p>

	<p>stable. Alternatives? Sodium Citrate is an alternative emulsifier but is not as effective and would require considerably more to achieve the same emulsification and stabilizing properties. We have researched alternatives. Currently no available ingredients have provided enough efficacy through the heat treatment and over shelf life to act as a viable replacement. Once an ingredient proves theoretical inhibition of <i>C. botulinum</i>; heat stability, finished product stability and a microbial challenge study when need to be conducted. No alternative management practices at this time - Sodium Phosphates are a critical factor in the microbial models for shelf stability. Loss of this material would result in all organic and organic complaint shelf-stable cheese sauces being discontinued This substance is essential (critical, 10 on a scale of 1 to 10) to our organic processed products.</p> <p>Handler Comments: Used in salad kits as an emulsifier for the cheese. Certified for 30+ years. Products are sold in all of the United States, Canada, Mexico, Korea, Taiwan, Japan, and Thailand. There are no alternatives for specific cheese and dairy-making processes. Our research teams are continuously looking for organic alternatives, but have yet to find certified organic items to replace these products. Loss of this material on the National List would prevent us from using cheese in our salad kits. Essential to organic processing. (8 on a scale of 1 to 10)</p> <p>Handler Comments: Used as an emulsifier in organic cheese powders. Many snack products that use powdered organic cheese. Certified for 15 years. Products sold in all 50 states and also exported. There are no effective alternatives available. There are also no alternative management practices that would eliminate the need for the specific substance. If this substance were no longer allowed, there would be oil separation resulting in an oily product that would result in decreased product sales. This substance is essential (critical, 10 on a scale of 1 to 10) to our organic processed products.</p> <p>Handler Comments: Used as to prevent clumping and separation of powdered cheese. Certified for 25+ years. Products are sold in all of the United States. We have tested alternatives but they do not work. We would not make these products of this material were removed from the National List. Essential to organic processing. (10 on a scale of 1 to 10)</p> <p>2017 Sunset Responses</p> <p>Handler Comments: Used as an emulsifier in organic cheese products. Vital to the operation. No other alternatives are acceptable. We could not make the product without these emulsifiers. We would be unable to produce an organic cheese product. Critically essential.</p>
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§ 205.606 – Non-organically produced agricultural products allowed as an ingredient in or on processed products labeled as “organic” only when the product is not commercially available in organic form.

Substance	Survey Response & OTA Position
Casings	New (fall 2017) Handler Comment: Used for organic sausages and hotdogs. Selling in 50 states, exported globally, too many to list. Function is as a collagen gel for use in enrobing hotdogs and sausages. No organic options, but this is collagen gel. Collagen casings/natural casings are a different technology. This is collagen gel for co-extrusion/enrobing. We would not be able to serve organic customers without this material. The essentiality of this substance for our organic products on a scale of 1-10 is 10.
Konjac Flour	New (fall 2017) Handler Comment: Currently in use. It’s a primary ingredient, not a thickener, and we are not aware of organic alternatives.
Pectin (non-amidated forms only)	2019 Sunset Responses Handler Comment: Used as a structural (gelling) agent in organic gummy vitamins (also used in jams and gummy candies). Company is selling in all 50 states and Canada. Certified for 8 years. No organic pectin alternatives exist. No alternative management practices that we are aware for gummy production. It is the industry standard along with gelatin. There are also no organic gelatins. We would not be able to make vegetarian organic gummy vitamins without pectin. There would be no path. This would lead to substantial lost revenue due to non-organic status of our gummy multivitamin line. 3

million dollars lost revenue for next year (estimated). Essential (10, critical). Ancillary substances: Pectin comes from plant (fruit) source. We are not aware that there are any carriers, preservatives or stabilizers in the pectin.

Handler Comment: Used as a stabilizer, thickener to set product in fruit prep, jams and jellies. Company is selling in all 50 states. Certified for 25 years. Have not found a suitable alternative. We would not make our products if pectin were removed from the NL. Essential (10, critical).

Handler Comment: Used as a thickener in fruit fillings for bakery products. Company is selling in most states as well as other countries; certified for 15 years. With respect to alternatives, other thickeners on the National List do not have equivalent properties; no organic alternatives. Loss of this material from the National List would make the fillings unstable and they would separate during the baking process. The products would be unacceptable and would not sell. The essentiality of pectin is rated as a 10 on a scale of 1-10. Critical ancillary substance for pectin is sucrose as a standardizer.

Handler Comment: Used as a thickener in fruit preserves and fruit snacks. Company is selling in all 50 states; certified for 25 years. Unaware of any functional organic pectin or other alternatives or other alternative management practices. Loss of this material from the National List would likely cause the discontinuation of the product line, as there is no alternative known with suitable functionality. The essentiality of pectin is rated as a 10 on a scale of 1-10. Critical ancillary substance for pectin is sucrose as a standardizer.

Handler Comment: Used as a gelling agent that also enhances flavor release in organic confectionary products. Company is selling in all 50 states as well as Canada and Asia-Pacific countries; certified for 2 years. Alternatives include similar gelling agents such as gelatin, agar, and gellan gum. None of these are currently available in an organic form. Yes, we do use other gelling agent and blends.

However, pectin has unique characteristics and is seen by consumers as label friendly. Pectin has a unique texture and flavor release that consumers enjoy. We would not be able to produce the products for which consumers are asking if we lost this material from the National List. Our sales would decrease if pectin were no longer available. The essentiality of pectin is rated as a 10 on a scale of 1-10. Critical ancillary substance for pectin that are used for standardizing texture and pH include sugar, dextrose, organic acids (citric or tartaric), and buffer salts (sodium citrate or sodium tartrate).

New (fall 2017) Handler Comment: Used for Organic gummy vitamins (also used in jams and gummy candies). Company has been certified for 8 years. Selling in all 50 states. Function is as a structural (gelling) agent. No organic pectin alternatives exist. No alternative management techniques work that we are aware for gummy production. It is the industry standard along with gelatin. There are also no organic gelatins. Without this material, we would not be able to make vegetarian organic gummy vitamins. There would be no path. This would result in substantial lost revenue due to non-organic status of our gummy multivitamin line. 3 million dollars lost revenue for next year (estimated). The essentiality of this substance on a scale of 1-10 is 10.

Pectin comes from plant (fruit) source. We are not aware that there are any carriers, preservatives or stabilizers in the pectin.

New (fall 2017) Handler Comment: Pectins are extensively used in the preparation of organic products (gummies, jellies, jams, etc.). Certified for 10+ years. Selling in all 50 states + Canada. The only alternative is gelatin, which is not favorable for our vegan and vegetarian customers nor is it offered as organic. Gelatin is not a reasonable solution for us due to its manufacturing process. New alternatives that are vegan and vegetarian need to be developed. We would not be able to manufacture gummy vitamins without pectin. We would have to remove organic certification from our gummies (and therefore lose our competitive advantage). The essentiality of this substance on a scale of 1-10 is 10.

2017 Sunset Responses

Handler Comment: Essential gelling agent in fruit snacks. Provides a unique texture with excellent flavor delivery. No organic alternatives that meet its function. Critical.

Used in fruit spreads, yogurt fruit filling, gummy confections as a bulking agent, thickener and stabilizer. Companies have been certified for 13-15 years. Products are sold throughout the United States and Canada. Our company diligently obtains commercial availability documentation looking for organic sources. None are available. No workable alternatives available. Others do not provide the same properties. If one were available, it would be tested in our laboratory immediately. Eliminating this ingredient would eliminate our organic business. All of our organic products use pectin as their base ingredient. If it were no longer allowed, the products would be discontinued. Quality and form of products would be compromised. Decreased quality and marketability. This ingredient is essential to organic processing.

Ancillary Substances: Trisodium Citrate, Sucrose. Spec sheets do not list any ancillary substances. Sucrose, sugars

In closing, we thank the Board for its time and commitment. The Organic Trade Association is committed to collecting information from our broad membership and beyond to assist NOSB in determining whether a substance on the National List remains essential to organic handling.

On behalf of our members across the supply chain and the country, the Organic Trade Association thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,



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Organic Trade Association

cc: Laura Batcha
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