

**National Organic Standards Board  
Handling Committee  
Sunset 2013 Proposed Recommendation  
Carrageenan on 205.605(a)  
May 22, 2012**

**List: 205.605 Nonagricultural (non-organic) substances allowed as ingredients in or on processed products labeled as “organic” or “made with organic (specified ingredients or food group (s)).”**

**(a) Non-synthetics allowed**

**Committee Summary:**

Federal register notice of the sunset of this material elicited several public comments both in favor and against its re-listing.

Review of the Technical Evaluation Report of October 3, 2011 showed that while new uses are being explored for Carrageenan in the food industry as protective coatings, the food uses of it have not changed substantially since the original TAP review was conducted in 1995.

Carrageenan is used as a food additive in the production of many processed foods. It can be used to help bind water, as a thickening agent, emulsifier, gelling agent, glazing agent, as a bulking agent, binder, etc.

The FDA says that Carrageenan may be safely used as a food additive for human consumption as long as its use is in accordance with 21 CFR 172.620. This regulation specifies that carrageenan should be prepared by aqueous extraction from any of the following eight species of Rhodophyceae seaweeds: *Chondrus crispus*, *Chondrus ocellatus*, *Eucheuma ocellatus*, *Eucheuma cottonii*, *Gigartina acicularis*, *Gigartina pistillata*, *Gigartina radula*, and *Gigartina stellata*. The following CAS numbers list the types of Carrageenan considered as, food safe : 9000-07-1 (general), 9062-07-1 (iota), 11114-20-8 (kappa), and 9064-57-7 (lambda).

While Carrageenan is a naturally occurring polysaccharide extracted from seaweed and considered non-synthetic, the extraction process used may in some instances alter it. There are differing points of view as to whether or not the extraction process actually changes the physical nature of the material to the point where it should be considered a synthetic or not.

During public comment there were several concerns raised regarding the possible health risks from the use of Carrageenan, we feel that those risks can be addressed by allowing only Carrageenan with one of the four CAS numbers mentioned above to be recommended for use as a food processing ingredient or additive.

Further concerns were raised about its potential risk to new born infants. To address this concern we think that the example set by the EU Scientific Committee on Food (SCF) and their recommendation would suffice to cover this area of concern. The SCF's concern with Carrageenan and new born infants, is based on facts from the Pediatric Nutrition Handbook that explains that in new born infants the neonatal intestine is uniquely capable of absorbing macromolecules via endocytosis. This is the reason why it is recommended by pediatricians not to feed infants solid foods until they are four to six months old, to help prevent food allergy (as printed in the Pediatric Nutrition Handbook). The use of Carrageenan in foods for older infants or weaning foods for young children does not appear to pose a concern, therefore uses in foods for older infants and young children should be ok.

The Handling Committee feels that by addressing the two mentioned concerns with annotations to the recommendation that we have addressed the concerns that have been raised.

Based off of public comment Carrageenan continues to be an important material used by the organic community and its stakeholders.

### **Recommendation:**

At this time we would recommend the relisting of Carrageenan on the National List: 205.605 Nonagricultural (nonorganic) substances allowed as ingredients in or on processed products labeled as "organic" or "made with organic (specified ingredients or food group (s)).

We recommend relisting under 605 (a)  
(a) Non-synthetics allowed

We would also include the following two annotations:

### **Annotations:**

The first annotation: only Carrageenan that is in one of the following four CAS Numbers will be allowed for use as a food additive – 9000-07-1 (general), 9062-07-1 (iota), 11114-20-8 (kappa), and 9064-57-7 (lambda). All other CAS numbers would not be recommended for use in food production, as an ingredient or otherwise.

The second annotation: Carrageenan would not be allowed for use in infant formulas.

We would also recommend that this listing be revisited once the NOP has finalized the Draft Guidance submitted by the NOSB on November 5, 2009. Re-evaluation of materials classification (agricultural, non-agricultural)(synthetic, non-synthetic) should be considered to ensure that the listed material has been properly classified and thus remove any further confusion from their status thus helping during future reviews.

Committee Vote:

6-Yes 0-No 0-Absent 0-Excused

