

**National Organic Standards Board
Handling Subcommittee Proposal
Reclassification of Magnesium Chloride
December 19, 2017**

Summary of Proposed Action:

The Handling Subcommittee proposes to change the classification of magnesium chloride from a nonagricultural synthetic substance to a nonagricultural non-synthetic substance and move the substance from §205.605(b) to §205.605(a) of the National List.

Subcommittee Review:

During the 2015 sunset review, magnesium chloride was recommended for continued listing on the National List but issues related to classification were raised. The Handling Subcommittee requested public comment on whether or not this material should be reclassified as non-synthetic since it is simply derived from sea water by brine drying, with no ancillary substances. Public comment at the time supported the reclassification of magnesium chloride as non-synthetic and that it be moved from §205.605(b) to §205.605(a). However, information provided in the 2016 TR indicates that magnesium chloride can be produced both synthetically and non-synthetically, and the annotation “derived from seawater” can apply to both.

Magnesium chloride produced by reacting a magnesium compound or mineral with hydrochloric acid is considered synthetic. This is because the substance undergoes a chemical change so that it is chemically or structurally different from how it naturally occurs in the source material. (TR 2016, 352- 354)

Natural sources of magnesium chloride can be extracted by various means which may affect the classification of the final substance as synthetic or non-synthetic. Evaporation and crystallization are physical processes which do not result in chemical change. Magnesium chloride extracted from brine by the two-step process involving calcium hydroxide and carbon dioxide is not chemically or structurally different from how it naturally occurs in the source material. (TR 2016, 352-361)

During the 2017 sunset review of magnesium chloride, information from the 2016 TR was incorporated into the review. A series of questions was posed to the public requesting feedback on the impact of reclassification in regards to feasibility of moving its listing, sufficiency of supply, and functionality. Most public comment was focused on retaining magnesium chloride on the National List due to its essentiality in tofu production, as well as in infant formula and dietary supplements. Public comment that addressed the reclassification included: Two certifiers who commented that reclassification would result in a small impact on users; one manufacturer who uses the material was supportive of reclassification with the current annotation; one organization supported reclassification if the material was found to be non-synthetic and suggested an annotation restricting its use to making tofu, and one organization who requested clarification on which forms would become prohibited as a result of reclassification.

Evaluation questions #1 and #2 in the 2016 TR go into detail about where and how magnesium chloride can be produced non-synthetically from a variety of natural commercial sources including seawater, terminal lake brines, subsurface brine deposits, and mined mineral deposits. The Handling Subcommittee compared these processes to the Decision Tree for Classification of Materials as

Synthetic or Nonsynthetic (NOP 5033-1) and determined that magnesium chloride produced via these sources does not go through any chemical changes, and therefore is non-synthetic.

The Handling Subcommittee proposes that magnesium chloride remain on the National List. However, the Subcommittee is bringing forward this proposal to change the listing from §205.605(b) to §205.605(a) due to the determination that magnesium chloride is available in a non-synthetic form. Additionally, the Handling Subcommittee proposes the annotation “derived from seawater” is removed since there are multiple sources from which non-synthetic magnesium chloride can be derived.

Vote in Subcommittee:

Motion to remove the annotation that reads “derived from seawater”, and to reclassify magnesium chloride as non-synthetic and move it’s listing from §205.605(b) to §205.605(a)

Motion by: Lisa de Lima

Seconded by: Steve Ela

Yes: 4 No: 0 Abstain: 0 Absent: 3 Recuse: 0

Approved by Lisa de Lima, Handling Subcommittee Chair, to transmit to NOSB February 21, 2018