

**National Organic Standards Board Meeting, September 17 – 19, 2002, Washington, D.C.**

**Processing Committee: Recommendation Glucono Delta Lactone (GDL)**

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**Introduction:** Glucono Delta Lactone (GDL) was petitioned to be added to the National List as a tofu coagulant. Specifically GDL is used to make silken tofu.

**Background:** Glucono Delta Lactone is produced both naturally through fermentation and synthetically. The petitioner has stated the material (GDL) is produced through fermentation. The committee considered only GDL produced from fermentation (as petitioned) and found GDL to be nonsynthetic and nonagricultural.

GDL is used in silken tofu at a level of approximately 0.4% and is considered as the coagulant of choice for silken tofu. GDL produces a gradual acidification and initiates the curdling of the protein thus producing the silken texture. Natural alternatives such as lemon juice or vinegar are not suitable for commercial production and can produce a bitter taste not palatable to consumers.

The reviewers felt a strong argument could be made for the use of GDL produced from the fermentation of carbohydrate substances in organic production.

**Recommendation:**

**205.605 (a) Nonsynthetics allowed:**

Glucono Delta Lactone (GDL) – produced by microbial fermentation of carbohydrate substances.

**Committee Vote:**

Approve – 7  
Disapprove - 0  
Recuse – 0  
Absent - 0  
Abstain - 0

**Conclusion:** This recommendation allows for the use of GDL produced naturally by microbial fermentation and provides a necessary tofu coagulant for the production of organic silken tofu.

