

# NOSB NATIONAL LIST FILE CHECKLIST

## PROCESSING

**MATERIAL NAME:** #2 Baking Powder, Aluminum Free



**NOSB Database Form**



**References**



**MSDS (or equivalent)**



**TAP Reviews from:** Rich Theuer, Joe  
Montecalvo

**NOSB/NATIONAL LIST  
COMMENT FORM  
PROCESSING**

**Material Name: #2 Baking Powder, Aluminum Free**

*Please use this page to write down comments, questions, and your anticipated vote(s).*

**COMMENTS/QUESTIONS:**

---

1. In my opinion, this material is:  
\_\_\_\_\_ Synthetic \_\_\_\_\_ Non-synthetic.

2. Should this material be allowed in an “organic food” (95% or higher organic ingredients)? \_\_\_\_\_ Yes \_\_\_\_\_ No  
**(IF NO, PROCEED TO QUESTION 3.)**

3. Should this substance be allowed in a “food made with organic ingredients” (50% or higher organic ingredients)? \_\_\_\_\_ Yes \_\_\_\_\_ No

# TAP REVIEWER COMMENT FORM for USDA/NOSB

Use this page or an equivalent to write down comments and summarize your evaluation regarding the data presented in the file of this potential National List material. Complete both sides of page. Attach additional sheets if you wish.

This file is due back to us by: Aug 29, 1995

Name of Material: Baking Powder, Al-free

Reviewer Name: R Theuer

Is this substance Synthetic or non-synthetic? Explain (if appropriate)

SYNTHETIC ~~#~~ (SODIUM BICARBONATE AND CORNSTARCH ARE DRYBLENDED WITH MONOCALCIUM PHOSPHATE)   
 (SODIUM BICARBONATE AND CORNSTARCH ARE NON-SYNTHETIC)

This material should be added to the National List as:

Synthetic Allowed                       Prohibited Natural

or,  Non-synthetic (Allowed as an ingredient in organic food)  
 Non-synthetic (Allowed as a processing aid for organic food)

or,  this material should not be on the National List

Are there any use restrictions or limitations that should be placed on this material on the National List?

SELF-LIMITED - NON-YEAST BAKED GOODS

Please comment on the accuracy of the information in the file:

OK

Any additional comments? (attachments welcomed)

Do you have a commercial interest in this material?  Yes;  No

Signature Richard C Theuer Date 8/28/95

**Please address the 7 criteria in the Organic Foods Production Act:  
(comment in those areas you feel are applicable)**

- (1) **the potential of such substances for detrimental chemical interactions with other materials used in organic farming systems;**

NO ISSUE

- (2) **the toxicity and mode of action of the substance and of its breakdown products or any contaminants, and their persistence and areas of concentration in the environment;**

NO ISSUE

- (3) **the probability of environmental contamination during manufacture, use, misuse or disposal of such substance;**

MINED PRECURSORS

- (4) **the effect of the substance on human health;**

NO ISSUE

SAFE

- (5) **the effects of the substance on biological and chemical interactions in the agroecosystem, including the physiological effects of the substance on soil organisms (including the salt index and solubility of the soil), crops and livestock;**

NO ISSUE

- (6) **the alternatives to using the substance in terms of practices or other available materials; and**

NOT PRACTICAL IN SMALL SCALE APPLICATIONS  
TO USE AMMONIUM CARBONATES. BAKING POWDER  
IS CHEAP, AVAILABLE, EFFECTIVE

- (7) **its compatibility with a system of sustainable agriculture.**

NO ISSUE

# TAP REVIEWER COMMENT FORM for USDA/NOSB

Use this page or an equivalent to write down comments and summarize your evaluation regarding the data presented in the file of this potential National List material. Complete both sides of page. Attach additional sheets if you wish.

This file is due back to us by: August 29, 1995

Name of Material: Baking Powder, Al-free

Reviewer Name: Dr. Joseph Montecalvo

Is this substance Synthetic or non-synthetic? Explain (if appropriate)

Synthetic (i.e. Sodium Bicarbonate)

If synthetic, how is the material made? (please answer here if our database form is blank)

Manufactured from Sodium Carbonate, water and CO<sub>2</sub> about 99.8% pure

This material should be added to the National List as:

Synthetic Allowed  Prohibited Natural

or,  Non-synthetic (Allowed as an ingredient in organic food)

Non-synthetic (Allowed as a processing aid for organic food)

or,  this material should not be on the National List

Are there any use restrictions or limitations that should be placed on this material on the National List?

less than 5%

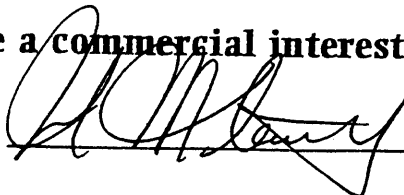
Please comment on the accuracy of the information in the file: O.K.

Any additional comments? (attachments welcomed)

- Additional uses - Antacids, topical treatment for surface burns, i.e. Merck Index p. 8531 11th Ed.

Do you have a commercial interest in this material?  Yes;  No

Signature



Date

7/31/95

**Please address the 7 criteria in the Organic Foods Production Act:  
(comment in those areas you feel are applicable)**

- (1) the potential of such substances for detrimental chemical interactions with other materials used in organic farming systems;**

*NONE.*

- (2) the toxicity and mode of action of the substance and of its breakdown products or any contaminants, and their persistence and areas of concentration in the environment;**

*none.*

- (3) the probability of environmental contamination during manufacture, use, misuse or disposal of such substance;**

*none*

- (4) the effect of the substance on human health;**

*None.*

- (5) the effects of the substance on biological and chemical interactions in the agroecosystem, including the physiological effects of the substance on soil organisms (including the salt index and solubility of the soil), crops and livestock;**

*none*

- (6) the alternatives to using the substance in terms of practices or other available materials; and**

*None.*

- (7) its compatibility with a system of sustainable agriculture.**

*For Selected Applications only.*

## Identification

**Common Name** **Baking Powder, Al-free** **Chemical Name**  
**Other Names**  
**Code #: CAS** N/A **Code #: Other**  
**N. L. Category** Synthetic Allowed **MSDS**  yes  no

## Chemistry

**Family**  
**Composition** A blend of sodium bicarbonate, one or more acid ingredients (often calcium acid phosphate), and an inert ingredient, usually starch.  
**Properties** varies with composition.  
**How Made** Components are physically mixed in a batch mixer. See entries for sodium bicarbonate, cornstarch, and calcium phosphates. Blending is more complex than it appears because proportions and order of mixing influence the qualities of the finished product.

## Use/Action

**Type of Use** Processing  
**Specific Use(s)** Leavening agent. Most large commercial bakeries use separate leavening components so baking powder only accounts for 25% of chemical leavening usage.  
**Action** When mixture is heated with water, the acid reacts with the bicarbonate to release carbon dioxide. The  
**Combinations**

## Status

**OFPA**  
**N. L. Restriction**  
**EPA, FDA, etc** FDA-GRAS  
**Directions**  
**Safety Guidelines**  
**State Differences**  
**Historical status**  
**International status**

## OEPA Criteria

2119(m)1: chemical interactions      Not Applicable

2119(m)2: toxicity & persistence      Not Applicable

2119(m)3: manufacture & disposal consequences

see under individual components.

2119(m)4: effect on human health

2119(m)5: agroecosystem biology      Not Applicable

2119(m)6: alternatives to substance

2119(m)7: Is it compatible?

## References

Boyd Foster, Arrowhead Mills, 1994. written communication.