



# BEYOND PESTICIDES

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October 11, 2016

Ms. Michelle Arsenault  
National Organic Standards Board  
USDA-AMS-NOP  
1400 Independence Ave., SW  
Room 2648-S, Mail Stop 0268  
Washington, DC 20250-0268

## Re. CS: Peracetic acid

These comments to the National Organic Standards Board (NOSB) on its Fall 2016 agenda are submitted on behalf of Beyond Pesticides. Founded in 1981 as a national, grassroots, membership organization that represents community-based organizations and a range of people seeking to bridge the interests of consumers, farmers and farmworkers, Beyond Pesticides advances improved protections from pesticides and alternative pest management strategies that reduce or eliminate a reliance on pesticides. Our membership and network span the 50 states and the world.

In reviewing this substance, the NOSB must apply the criteria in the Organic Foods Production Act (OFPA), that its use—

- (i) would not be harmful to human health or the environment;
- (ii) is necessary to the production or handling of the agricultural product because of the unavailability of wholly natural substitute products; and
- (iii) is consistent with organic farming and handling.<sup>1</sup>

The listings under review are:

**205.601(a)(6) Peracetic acid—for use in disinfecting equipment, seed, and asexually propagated planting material. Also permitted in hydrogen peroxide formulations as allowed in §205.601(a) at concentration of no more than 6% as indicated on the pesticide product label.**

**205.601(i)(8) Peracetic acid—for use to control fire blight bacteria. Also permitted in hydrogen peroxide formulations as allowed in §205.601(i) at concentration of no more than 6% as indicated on the pesticide product label.**

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<sup>1</sup> OFPA §6517(c)(1)(A). Further details at OFPA §6518(m).

## Current information from EPA should be reviewed.

Information from recent EPA reviews has not been incorporated into recent decisions about peracetic acid. The current annotation seems to indicate that peracetic acid is an “inert” ingredient, but it is not listed in EPA’s InertFinder database, nor is it listed on the historic lists 4A or 4B.

EPA has efficacy data for peracetic acid products that indicate strong effectiveness on hard surfaces.<sup>2</sup> This makes us question the need for chlorine compounds.

In 2009, EPA opened a registration review docket and published a preliminary work plan for peroxy compounds. In March 2010, EPA issued a final work plan that described potential health and environmental risks and identified data needs. In December 2011, the agency issued a Data Call-in, which was withdrawn and reissued in February 2012, imposing new data requirements for human toxicity, ecotoxicity, environmental fate, and occupational exposure. In November 2013, EPA recognized the Peroxy Compounds Task Force (PCTF), composed of registrants and potential registrants of peroxy compound products, as a data submitter for these materials.<sup>3</sup>

In its summary of human health effects data for the peroxy compounds EPA finds:

High concentrations of peroxy compounds [including peracetic acid and hydrogen peroxide] are ... corrosive and can be acutely toxic and/or extremely irritating to the lungs and skin.<sup>4</sup>

EPA will be developing occupational inhalation risk assessments based on anticipated data. The American Conference of Governmental Industrial Hygienists (ACGIH) has set new occupational exposure limits for peracetic acid.<sup>5</sup> The National Advisory Committee for Acute Exposure Guideline Levels for Hazardous Substances (NAC/AEGL Committee) has established even more stringent limits.<sup>6</sup> A review by scientists from Ecolab, a member of the PCTF and manufacturer of peracetic acid products, has come up with similar limits.<sup>7</sup> The review also stated:

Overall, there are notable deficiencies in the PAA toxicological dataset, particularly in regards to information gaps concerning chronic toxicity (e.g., carcinogenicity, mutagenicity/genotoxicity, reproductive/developmental toxicity, repeat-dose toxicity) and the fact that a large number of toxicity studies did not follow conventional testing methodology. However, the available in vivo and human experience data indicate that

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<sup>2</sup> [http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:7:::NO:1,3,31,7,12,25:P3\\_XCHEMICAL\\_ID:2278](http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:7:::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:2278)

<sup>3</sup> <http://www.epa.gov/sites/production/files/2014-04/documents/pr2013-2.pdf>.

<sup>4</sup> Summary of Human Health Effects Data for the Peroxy Compounds Registration Review Decision Document. <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OPP-2009-0546-0003>.

<sup>5</sup> <http://potentcompoundsafety.com/2014/02/acgih-occupational-exposure-limit-peracetic-acid.html>.

<sup>6</sup> National Research Council (US) Committee on Acute Exposure Guideline Levels. Acute Exposure Guideline Levels for Selected Airborne Chemicals: Volume 8. Washington (DC): National Academies Press (US); 2010. 7, Peracetic Acid Acute Exposure Guideline Levels. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK220001/>.

<sup>7</sup> Pechacek, N., Osorio, M., Caudill, J., & Peterson, B. (2015). Evaluation of the toxicity data for peracetic acid in deriving occupational exposure limits: A minireview. *Toxicology letters*, 233(1), 45-57.

sensory irritation appears to be the most sensitive health endpoint and protecting against this endpoint should adequately mitigate risk from other potential effects.<sup>8</sup>

### The National List needs to identify which peracetic acid is allowed.

A new technical review was published after the CS completed its preliminary review. It reveals that there are several distinct substances called “peracetic acid,” and that not all are permitted under NOP regulations.<sup>9</sup> The regulations should make it clear which of these substances is actually allowed.

### Peracetic acid must be considered in the context of the need for sanitizers and available materials.

The NOSB needs to take a comprehensive look at all sanitizers, their needs, and evaluate whether all needs can be met with materials that have low impacts on human health and the environment.

### Conclusion

There are several issues that need to be addressed in reviewing peracetic acid –its identity, worker protection, and its role in the universe of sanitizers and disinfectants used in organic production.

Thank you for your consideration of these comments.

Sincerely,



Terry Shistar, Ph.D.  
Board of Directors

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<sup>8</sup> Pechacek, N., Osorio, M., Caudill, J., & Peterson, B. (2015). Evaluation of the toxicity data for peracetic acid in deriving occupational exposure limits: A minireview. *Toxicology letters*, 233(1), 45-57.

<sup>9</sup> 2016 Peracetic Acid TR Crops. Lines 236-260 and Table 5.