



"The Chlorine Dioxide People"

Application Note #19

Can Chlorine dioxide be used with Organic foods or Organic processing?

The answer is **yes**. According to 7 CFR part 205, SUBCHAPTER M—ORGANIC FOODS PRODUCTION ACT PROVISIONS chlorine dioxide is allowed.

7 CFR §205.601 Synthetic substances allowed for use in organic crop production.

In accordance with restrictions specified in this section, the following synthetic substances may be used in organic crop production: Provided, That, use of such substances do not contribute to contamination of crops, soil, or water. Substances allowed by this section, except disinfectants and sanitizers in paragraph (a) and those substances in paragraphs (c), (j), (k), and (l) of this section, may only be used when the provisions set forth in §205.206(a) through (d) prove insufficient to prevent or control the target pest.

(a) As algicide, disinfectants, and sanitizer, including irrigation system cleaning systems.

(2) Chlorine materials—For pre-harvest use, residual chlorine levels in the water in direct crop contact or as water from cleaning irrigation systems applied to soil must not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act, except that chlorine products may be used in edible sprout production according to EPA label directions.

(ii) Chlorine dioxide.

7 CFR §205.603 Synthetic substances allowed for use in organic livestock production.

In accordance with restrictions specified in this section the following synthetic substances may be used in organic livestock production:

a(7) Chlorine materials—disinfecting and sanitizing facilities and equipment. Residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.

(ii) Chlorine dioxide.

Based upon the above chlorine dioxide is allowed with restrictions for Livestock Management Tools and Production Aids. The restriction is that it may be used up to maximum labeled rates for sanitizing equipment or tools (including dairy pipelines and tanks). Label instructions should be followed regarding requirements for rinsing or not rinsing prior to the equipment's next use. Residual chlorine levels in the water in direct contact with food products or animals shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act (0.8 mg/L or 800 ppb).

Based upon the above chlorine dioxide is allowed with restrictions for Processing Sanitizers and Cleaners. The restriction is that it may be used in direct contact with post-harvest crop or food at levels approved by the FDA or the EPA for such a purpose. Such use might include a final rinse and residual chlorine levels in final rinse water shall not exceed the Maximum Residual Disinfectant Limit under the Safe Drinking Water Act, except that a final rinse is not required for use in FSIS inspected egg breaking facilities. When used as disinfectants and sanitizers for food contact surfaces, may be used up to maximum labeled rates and rinsing is not required unless mandated by the label use directions.

Based upon the above, chlorine dioxide is allowed with restrictions for Crop Management Tools and Production Aids. The restriction is that residual chlorine levels in the water in direct crop contact (when used pre-harvest) or as water from cleaning irrigation systems applied to the soil should not exceed the maximum residual disinfectant level under the SDWA, except that chlorine products may be used in edible sprout production according to EPA label directions. May be used up to maximum labeled rates for disinfecting and sanitizing equipment or tools. No intervening event is necessary before equipment is used in contact with organic crops.

References:

- Organic Materials Review Institute, <http://www.omri.org/simple-gml-search/results/chlorine%20dioxide>
- Title 7 Agriculture → Subtitle B → Chapter I → Subchapter M → Part 205—NATIONAL ORGANIC PROGRAM