

Disinfectants and Sanitizers

Covered Products:

This specification covers concentrated and ready-to-use antimicrobial mold and mildew remediation products and other types of disinfectants as well as food-contact and non-food-contact surface sanitizers. It does not cover hand sanitizers, non-antimicrobial or antimicrobial hand soaps, and laundry sanitizers.

Background:

During development of the multi-state contract for *Environmentally Preferable Cleaning Products, Programs, Equipment and Supplies*, awarded in March 2015, the sourcing team, led by the Massachusetts Operational Services Division, researched and compiled criteria for surface disinfectants and sanitizers in consultation with the Massachusetts Toxics Reduction Task Force and the Responsible Purchasing Network. These criteria represent a lesser impact to public health and the environment, while ensuring efficacy and high performance. Notably, these products are devoid of chemicals that are known to cause asthma, cancer, and skin sensitization, except for food-contact surface sanitizers, which may contain peroxyacetic acid, an asthmagen.

Definitions:

International Agency for Research on Cancer (IARC) – is the specialized cancer agency of the World Health Organization dedicated to promoting international collaboration in cancer research.

National Toxicology Program – is an interagency program, housed within the U.S. Department of Health and Human Services, whose mission is to evaluate agents of public health concern by developing and applying tools of modern toxicology and molecular biology. It maintains an objective, science-based approach in dealing with critical issues in toxicology.

Standard Setting and Certification Programs:

Association of Occupational and Environmental Clinics (AOEC) – is a non-profit organization committed to improving the practice of occupational and environmental health through information sharing and collaborative research.

Green Seal - is a non-profit, independent, third party standard setting and certification organization that follows the Guiding Principles and Procedures for Type I Environmental Labeling adopted by the International Organization for Standardization (ISO 14024). Green Seal has developed environmental standards and certifies products for more than 40 major product categories.

UL EcoLogo - is an independent, third party standard setting and certification program that follows the Guiding Principles and Procedures for North American Type I Environmental Labeling adopted by the International Organization for Standardization (ISO 14024). Since its establishment in 1988, EcoLogo has been recognized or referenced in more than 350 specifications and standards.

Guidance:

It is recommended that affected entities prioritize green cleaning first, and only use disinfectants when necessary in cleaning procedures. For more information on best practices for green cleaning and the use of disinfectants and sanitizers, see the New York State green cleaning website at <https://greencleaning.ny.gov/bestPractice.aspx>.

Specifications:

Affected entities are encouraged to purchase disinfectants and sanitizers that meet the following specifications.

For Disinfectants (including Antimicrobial Mold & Mildew Cleaners) and Non-Food Contact Surface Sanitizers:

Products meeting the following required criteria will meet the specification:

- Must be registered by the U.S. Environmental Protection Agency (EPA) pursuant to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as a hard surface disinfectant or non-food-contact surface sanitizer. Antimicrobial mold and mildew cleaners must be EPA-registered as a fungicide against *Aspergillus niger* or as a mildewstat.
- Products may not contain known, suspected, reasonably anticipated, or probable human carcinogens per the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the State of California.
- Products may not contain reproductive toxins per the State of California.
- Products may not contain asthmagens per the Association of Occupational and Environmental Clinics (AOEC) (listed with a G, Rs, Rrs or Rr designation).
- Products may not contain nonyl phenol ethoxylates or other alkyl phenol ethoxylates (APEs).
- Prohibited “Active Ingredients”:
 - Chlorine Bleach (Sodium hypochlorite)
 - Hydrogen chloride (HCl)

- Phenols (e.g., Ortho-phenylphenol)
 - Pine oil
 - Quaternary ammonium chloride compounds (e.g., Benzalkonium chloride, ADBACs, DDACs)
 - Silver
 - Thyme oil
- Acceptable “Active Ingredients”: The following “Active Ingredients” have been approved by the Massachusetts Toxics Reduction Task Force:
 - Hydrogen peroxide (including Accelerated Hydrogen Peroxide)
 - Citric Acid
 - Lactic acid
 - Caprylic acid
- All concentrated surface, disinfectants and sanitizers, must be designed and packaged as a Closed Loop Dilution-Control System, that meets the following requirements:
 - No open containers are allowed. The container must have "spill-resistant packaging" that requires coupling to a specially designed device in order to dispense the product.
 - The container may not be able to be "practically accessed" during routine use. The packaging must not allow for access or exposure to the concentrated product after opening a cap or lid, or before or while connecting to the dispensing system.
 - The container must contain a backflow prevention system that meets the current American Society of Sanitary Engineering (ASSE) 1055 standard.
 - EXCEPTION: Unless it is in a portion controlled package.

Desirable Criteria:

Third-party verification by Green Seal or UL EcoLogo is encouraged but not required.

Food-Contact Surface Sanitizers:

Products meeting the following required criteria will meet the specification:

- Must be EPA (FIFRA) Registered as a Food-Contact Surface Sanitizer.
- Prohibited “Active Ingredients” include:
 - Chlorine Bleach (Sodium hypochlorite)
 - Hydrogen chloride (HCL)
 - Quaternary ammonium chloride compounds (e.g., Benzalkonium chloride, ADBACs, DDACs)
 - Silver
 - Thyme oil

- Acceptable “Active Ingredients” include:
 - Hydrogen Peroxide
 - Peroxyacetic acid
 - Lactic Acid
 - Citric Acid
 - Caprylic Acid

Desirable Criteria:

Third-party verification by Green Seal or UL EcoLogo is encouraged but not required.

Training:

All vendors that offer disinfectants and sanitizers should ensure sales staff are trained to provide responsible advice for their use. Vendor training should promote pre-cleaning with a non-disinfecting certified “green” cleaner and promote limited targeted use of disinfectants and sanitizers to reduce toxic chemical exposures and lower costs. Training should specify that hard surface disinfectants are not for use on soft surfaces such as upholstery and carpet, unless they are registered for such applications. Training should clearly identify the surfaces that need to be disinfected (such as touch points) as well as those that do not, and should reiterate the clean, then sanitize model.

Packaging:

Packaging shall comply with Environmental Conservation Law section 37-0205. Packaging shall not contain inks, dyes, pigments, adhesives, stabilizers, or any other additives to which any lead, cadmium, mercury or hexavalent chromium is intentionally added or contain incidental concentrations of lead, cadmium, mercury or hexavalent chromium which together are greater than 100 parts per million by weight (0.01%). New York State encourages affected entities to adopt the following:

- The use of bulk packaging.
- The use of reusable packaging.
- The use of innovative packaging that reduces the weight of packaging, reduces packaging waste, or utilizes packaging that is a component of the product.
- That all packaging remain the property of the supplier and not become the property of the affected state entity under any circumstance or condition. The vendor shall certify that the packaging material will be reused, recycled, or composted, and managed in compliance with applicable local, state, and federal laws.
- Packaging that maximizes recycled content and/or meets or exceeds the minimum post-consumer content level for packaging in the U.S. Environmental Protection Agency Comprehensive Procurement Guidelines.
- Packaging that is recyclable or compostable.