

DIVISION OF CHILD CARE AND EARLY CHILDHOOD EDUCATION

Training Module 8

Hazardous Materials and Disposal of Bio Contaminants

Rev. 8/2016

Hazardous Materials and Disposal of Bio Contaminants

Handling and storage of hazardous materials

Over half of the 2 million poison calls to poison control centers relate to children under 6 years of age. The most common substances: cosmetics or other personal care products, cleaning substances, and medications. Medications often look like candy to children and should be locked, and preferably with child-resistant cap. If toxic materials are stored in the food storage area, they could be ingested accidentally. Staff members should also protect themselves from injury from splashing hazardous liquids into eyes, nose, or mouth.

Caring For our Children (CFOC) standards that have been attached in conjunction with this section are as follows:

- 3.3.6.2 Labeling, storage, and disposal of medication
- 5.2.9.1 Use and storage of toxic substances
- 5.2.9.2 Use of a Poison Center
- 5.2.9.3 Informing staff regarding presence of toxic substances

Appropriate Disposal of Bio-Contaminants

Treat all body fluids as if they were infectious. If you clean up the spill and rinse immediately, the disinfectant will work more effectively on the spot that remains. Always follow the manufacturer's instructions related to diluting, how long to leave on the surface, and if rinsing is needed. Even when you wear gloves, you must wash your hands well after you finish. Don't dispose

CFOC references that have been attached in conjunction with this section are as follows:

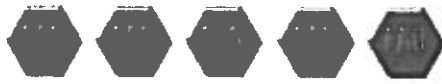
- Appendix J: Selecting an appropriate sanitizer or disinfectant
- Appendix L: Cleaning up body fluids



Chapter 3: Health Promotion and Protection

3.6 Management of Illness

3.6.3 Medications



Standard 3.6.3.2: Labeling, Storage, and Disposal of Medications



Any prescription medication should be dated and kept in the original container. The container should be labeled by a pharmacist with:

- The child's first and last names;
- The date the prescription was filled;
- The name of the prescribing health professional who wrote the prescription, the medication's expiration date;
- The manufacturer's instructions or prescription label with specific, legible instructions for administration, storage, and disposal;
- The name and strength of the medication.

Over-the-counter medications should be kept in the original container as sold by the manufacturer, labeled by the parent/guardian, with the child's name and specific instructions given by the child's prescribing health professional for administration.

All medications, refrigerated or unrefrigerated, should:

- Have child-resistant caps;
- Be kept in an organized fashion;
- Be stored away from food;
- Be stored at the proper temperature;
- Be completely inaccessible to children.

Medication should not be used beyond the date of expiration. Unused medications should be returned to the parent/guardian for disposal. In the event medication cannot be returned to the parent or guardian, it should be disposed of according to the recommendations of the US Food and Drug Administration (FDA) (1).

Documentation should be kept with the child care facility of all disposed medications. The current guidelines are as follows:

- a. If a medication lists any specific instructions on how to dispose of it, follow those directions.
- b. If there are community drug take back programs, participate in those.
- c. Remove medications from their original containers and put them in a sealable bag. Mix medications with an undesirable substance such as used coffee grounds or kitty litter. Throw the mixture into the regular trash. Make sure children do not have access to the trash (1).

RATIONALE:

Child-resistant safety packaging has been shown to significantly decrease poison exposure incidents in young children (1).



3.6.3.2 - Labeling, Storage, and Disposal of Medications

Proper disposal of medications is important to help ensure a healthy environment for children in our communities. There is growing evidence that throwing out or flushing medications into our sewer systems may have harmful effects on the environment (1-3).

TYPE OF FACILITY:

Small Family Child Care Home, Center, Large Family Child Care Home

REFERENCES:

1. U.S. Food and Drug Administration. 2010. Disposal by flushing of certain unused medicines: What you should know. <http://www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/SafeDisposalofMedicines/ucm186187.htm>.
2. U.S. Environmental Protection Agency. 2009. Pharmaceuticals and personal care products as pollutants (PPCPs). <http://www.epa.gov/ppcp/>.
3. Fiene, R. 2002. *13 indicators of quality child care: Research update*. Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. <http://aspe.hhs.gov/basic-report/13-indicators-quality-child-care>.



Chapter 5: Facilities, Supplies, Equipment, and Environmental Health

5.2 Quality of the Outdoor and Indoor Environment

5.2.9 Prevention and Management of Toxic Substances



Standard 5.2.9.1: Use and Storage of Toxic Substances



The following items should be used as recommended by the manufacturer and should be stored in the original labeled containers:

- a. Cleaning materials;
- b. Detergents;
- c. Automatic dishwasher detergents;
- d. Aerosol cans;
- e. Pesticides;
- f. Health and beauty aids;
- g. Medications;
- h. Lawn care chemicals;
- i. Other toxic materials.

Safety Data Sheets (SDS) must be available onsite for each hazardous chemical that is on the premises.

These substances should be used only in a manner that will not contaminate play surfaces, food, or food preparation areas, and that will not constitute a hazard to the children or staff. When not in active use, all chemicals used inside or outside should be stored in a safe and secure manner in a locked room or cabinet, fitted with a child-resistant opening device, inaccessible to children, and separate from stored medications and food.

Chemicals used in lawn care treatments should be limited to those listed for use in areas that can be occupied by children.

Medications can be toxic if taken by the wrong person or in the wrong dose. Medications should be stored safely (see Standard 3.6.3.1) and disposed of properly (see Standard 3.6.3.2).

The telephone number for the poison center should be posted in a location where it is readily available in emergency situations (e.g., next to the telephone). Poison centers are open twenty-four hours a day, seven days a week, and can be reached at 1-800-222-1222.

RATIONALE:

There are over two million human poison exposures reported to poison centers every year. Children under six years of age account for over half of those potential poisonings. The substances most commonly involved in poison exposures of children are cosmetics and personal care products, cleaning substances, and



5.2.9.1 - Use and Storage of Toxic Substances

medications (1).

The SDS explains the risk of exposure to products so that appropriate precautions may be taken.

COMMENTS:

Many child-resistant types of closing devices can be installed on doors to prevent young children from accessing poisonous substances. Many of these devices are self-engaging when the door is closed and require an adult hand size or skill to open the door. A locked cabinet or room where children cannot gain access is best but must be used consistently. Child-resistant containers provide another level of protection.

TYPE OF FACILITY:

Small Family Child Care Home, Center, Large Family Child Care Home

RELATED STANDARDS:

3.6.3.1 Medication Administration

3.6.3.2 Labeling, Storage, and Disposal of Medications

5.2.8.1 Integrated Pest Management

5.2.9.3 Informing Staff Regarding Presence of Toxic Substances

6.3.2.3 Pool Equipment and Chemical Storage Rooms

6.3.4.2 Chlorine Pucks

REFERENCES:

1. Bronstein, A. C., D. A. Spyker, L. R. Cantilena, Jr., J. L. Green, B. H. Rumack, S. E. Heard. 2008. 2007 annual report of the American Association of Poison Control Centers' National Poison Data System (NPDS): 25th annual report. Clin Toxicol 46:927-1057.



Chapter 5: Facilities, Supplies, Equipment, and Environmental Health

5.2 Quality of the Outdoor and Indoor Environment

5.2.9 Prevention and Management of Toxic Substances



Standard 5.2.9.2: Use of a Poison Center



The poison center should be called for advice about any exposure to toxic substances, or any potential poisoning emergency. The national help line for the poison center is 1-800-222-1222, and specialists will link the caregiver/teacher with their local poison center. The advice should be followed and documented in the facility's files. The caregiver/teacher should be prepared for the call by having the following information for the poison center specialist:

- a) The child's age and sex;
- b) The substance involved;
- c) The estimated amount;
- d) The child's condition;
- e) The time elapsed since ingestion or exposure.

The caregiver/teacher should not induce vomiting unless instructed by the poison center.

RATIONALE:

Toxic substances, when ingested, inhaled, or in contact with skin, may react immediately or slowly, with serious symptoms occurring much later (1). It is important for the caregiver/teacher to call the poison center after the exposure and not "wait and see." Symptoms vary with the type of substance involved. Some common poisoning symptoms include dermatitis, nausea, vomiting, diarrhea, and congestion.

COMMENTS:

Any question on possible risks for exposure should be referred to poison center professionals for proper first aid and treatment. Regional poison centers have access to the latest information on emergency care of the poisoning victim.

Caregivers/teachers can go to <http://www.aapcc.org> to find their local poison center or for additional information on poisoning and poison safety. They can also access a variety of services that poison centers have: poison prevention, poison control, information about toxic substances including lead and chemicals that may be found in consumer products, and even assistance with disaster planning. Caregivers/teachers should feel comfortable calling the poison center about medication dosing errors. Poison centers provide free, confidential advice on how to handle the situation.

TYPE OF FACILITY:

Small Family Child Care Home, Center, Large Family Child Care Home

RELATED STANDARDS:

5.2.9.2 - Use of a Poison Center



Appendix P: Situations that Require Medical Attention Right Away

REFERENCES:

1. American Academy of Pediatrics, Committee on Injury, Violence, and Poison Prevention. 2007. Policy statement: Poison treatment in the home. *Pediatrics* 119:1031.



Chapter 5: Facilities, Supplies, Equipment, and Environmental Health

5.2 Quality of the Outdoor and Indoor Environment

5.2.9 Prevention and Management of Toxic Substances



Standard 5.2.9.3: Informing Staff Regarding Presence of Toxic Substances

Employers should provide staff with hazard information, including access to and review of the Safety Data Sheets (SDS) as required by the Occupational Safety and Health Administration (OSHA), about the presence of toxic substances such as formaldehyde, cleaning and sanitizing supplies, insecticides, herbicides, and other hazardous chemicals in use in the facility. Staff should always read the label prior to use to determine safety in use. For example, toxic products regulated by the Environmental Protection Agency (EPA) will have an EPA signal word of CAUTION, WARNING, or DANGER. Where nontoxic substitutes are available, these nontoxic substitutes should be used instead of toxic chemicals. If a nontoxic product is not available, caregivers/teachers should use the least toxic product for the job. A CAUTION label is safer than a WARNING label, which is safer than a DANGER label.

RATIONALE:

These precautions are essential to the health and well-being of the staff and the children alike. Many cleaning products and art materials contain ingredients that may be toxic. Regulations require employers to make the complete identity of these materials known to users. Because nontoxic substitutes are available for virtually all necessary products, exchanging them for toxic products is required.

COMMENTS:

The U.S. Department of Labor, which oversees OSHA, is responsible for protection of workers and is listed in the phone books of all large cities. Because standards change frequently, the facility should seek the latest standards from the EPA. Information on toxic substances in the environment is available from the EPA. For information on consumer products contact the U.S. Consumer Product Safety Commission (CPSC). For information on art and craft materials, contact the Art and Creative Materials Institute (ACMI). The local health jurisdiction can also be a resource for information on hazardous chemicals in child care.

The SDS explains the risk of exposure to products so that appropriate precautions may be taken.

TYPE OF FACILITY:

Center, Large Family Child Care Home

RELATED STANDARDS:

[5.2.8.1](#) Integrated Pest Management

[5.2.9.1](#) Use and Storage of Toxic Substances

[5.2.9.7](#) Proper Use of Art and Craft Materials

[6.3.2.3](#) Pool Equipment and Chemical Storage Rooms

[6.3.4.2](#) Chlorine Pucks

REFERENCES:

1. Wargo, J. 2004. The physical school environment: An essential component of a health-promoting



5.2.9.3 - Informing Staff Regarding Presence of Toxic Substances

school. WHO Information series on School Health, document 2. Geneva: WHO.
http://www.who.int/school_youth_health/media/en/physical_sch_environment.pdf.

2. Fiene, R. 2002. 13 indicators of quality child care: Research update. Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation.
<http://aspe.hhs.gov/basic-report/13-indicators-quality-child-care>.



Cleaning Up Body Fluids

Treat urine, stool, vomit, blood, and body fluids, except for human milk, as potentially infectious. Spills of body fluid should be cleaned up and surfaces disinfected immediately.

- a) For small amounts of urine and stool on smooth surfaces, wipe off and clean away visible soil with a little detergent solution. Then rinse the surface with clean water.
- b) Apply a disinfectant following the manufacturer's instructions. See Appendix J.

For larger spills on floors, or any spills on rugs or carpets:

- c) Wear gloves while cleaning. While disposable gloves can be used, household rubber gloves are adequate for all spills except blood and bloody body fluids. Disposable gloves should be used when blood may be present in the spill;
- d) Take care to avoid splashing any contaminated material onto the mucous membranes of your eyes, nose or mouth, or into any open sores you may have;
- e) Wipe up as much of the visible material as possible with disposable paper towels and carefully place the soiled paper towels and other soiled disposable material in a leak-proof, plastic bag that has been securely tied or sealed. Use a wet/dry vacuum on carpets, if such equipment is available;
- f) Immediately use a detergent, or a combination detergent/disinfectant to clean the spill area. Then rinse the area with clean water. Additional cleaning by shampooing or steam cleaning the contaminated surface may be necessary;
- g) For blood and body fluid spills on carpeting, blot to remove body fluids from the fabric as quickly as possible. Then disinfect by spot-cleaning with a combination detergent/disinfectant, and shampooing, or steam-cleaning the contaminated surface;
- h) If directed by the manufacturer's instructions, dry the surface;
- i) Clean and rinse reusable household rubber gloves, then apply disinfectant. Remove, dry and store these gloves away from food or food surfaces. Discard disposable gloves;

j) Mops and other equipment used to clean up body fluids should be:

- 1) Cleaned with detergent and rinsed with water;
 - 2) Rinsed with a fresh disinfectant solution;
 - 3) Wrung as dry as possible;
 - 4) Air-dried.
- k) Wash your hands afterward, even though you wore gloves;
- l) Remove and bag clothing (yours and those worn by children) soiled by body fluids;
- m) Put on fresh clothes after washing the soiled skin and hands of everyone involved.

For guidance on sanitizers and disinfectants, please refer to Appendix J, Selecting an Appropriate Sanitizer or Disinfectant.

References:

1. Grenier, D., D. Leduc, eds. 2008. *Well beings: A guide to health in child care*. 3rd ed. Ottawa: Canadian Paediatric Society.
2. Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health. 2010. *Preventing exposures to bloodborne pathogens among paramedics*. <http://www.cdc.gov/niosh/docs/wp-solutions/2010-139/pdfs/2010-139.pdf>.
3. Centers for Disease Control and Prevention. 2010. Bloodborne infectious diseases: HIV/AIDS, hepatitis B, hepatitis C. <http://www.cdc.gov/niosh/topics/bbp/>.
4. Pickering, L. K., C. J. Baker, D. W. Kimberlin, S. S. Long, eds. 2009. Infections spread by blood and body fluids. In *Red book: 2009 report of the Committee on Infectious Diseases*. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics.
5. Occupational Safety and Health Administration (OSHA). 2008. Bloodborne pathogens. 29 CFR 1910.1030. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10051.
6. Clark, Roger A. 1992. Standard interpretations: 1910.1030, written at the request of Marjorie P. Alloy. Occupational Safety and Health Administration (OSHA). http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=20952.



Selecting an Appropriate Sanitizer or Disinfectant

One of the most important steps in reducing the spread of infectious diseases in child care settings is cleaning, sanitizing or disinfecting surfaces that could possibly pose a risk to children or staff. Routine cleaning with detergent and water is the most common method for removing some germs from surfaces in the child care setting. However, most items and surfaces in a child care setting require sanitizing or disinfecting after cleaning to further reduce the number of germs on a surface to a level that is unlikely to transmit disease.

What is the difference between sanitizing and disinfecting?

Sometimes these terms are used as if they mean the same thing, but they are not the same.

Sanitizer is a product that reduces but does not eliminate germs on inanimate surfaces to levels considered safe by public health codes or regulations. A sanitizer may be appropriate to use on food contact surfaces (dishes, utensils, cutting boards, high chair trays), toys that children may place in their mouths, and pacifiers. See Appendix K, Routine Schedule for Cleaning, Sanitizing and Disinfecting for guidance on use of sanitizer vs. disinfectant.

Disinfectant is a product that destroys or inactivates germs (but not spores) on an inanimate object. A disinfectant may be appropriate to use on hard, non-porous surfaces such as diaper change tables, counter tops, door & cabinet handles, and toilets and other bathroom surfaces. See Appendix K, Routine Schedule for Cleaning, Sanitizing and Disinfecting for guidance on use of sanitizer vs. disinfectant.

The U.S. Environmental Protection Agency (EPA) recommends that only EPA-registered products be used. Only a sanitizer or disinfectant product with an EPA registration number on the label can make public health claims that they are effective in reducing or inactivating germs. Many bleach and hydrogen peroxide products are EPA-registered and can be used to sanitize or disinfect. Please see the “How to Find EPA Registration Information” section below to learn more specific information on the products.

Always follow the manufactures’ instructions when using EPA-registered products described as sanitizers or disinfectants. This includes pre-cleaning, how long the product needs to remain wet on the surface or item, whether or not the product should be diluted or used as is, and if rinsing is needed. Also check to see if that product can be used on a food contact surface or is safe for use on items that may go into a child’s mouth. Please note that the label instructions on most sanitizers and disinfectants indicate that the surface must be pre-cleaned before applying the sanitizer or disinfectant.

Are there alternatives to chlorine bleach?

A product that is not chlorine bleach can be used in child care settings IF:

- it is registered with the EPA;
- it is also described as a sanitizer or as a disinfectant;
- it is used according to the manufacturer’s instructions.

Check the label to see how long you need to leave the sanitizer or disinfectant in contact with the surface you are treating, whether you need to rinse it off before contact by children, for any precautions when handling, and whether it can be used on a surface that may come in contact with child’s mouth.

Some child care settings are using products with hydrogen peroxide as the active ingredient instead of chlorine bleach. Check to see if the product has an EPA registration number and follow the manufacturer's instructions for use and safe handling. (Please see the "How to Find EPA Registration Information" section below for more information.) Remember that EPA-registered products will also have available a Safety Data Sheet (SDS) that will provide instructions for the safe use of the product and guidance for first aid response to an accidental exposure to the chemical.

In addition, some manufacturers of sanitizer and disinfectant products have developed "green cleaning products" that have EPA registration. As new environmentally-friendly cleaning products appear in the market, check to see if they are EPA-registered.

Household Bleach & Water

Many household bleach products are now EPA-registered. When purchasing EPA-registered chlorine bleach, make sure that the bleach concentration is for household use, and not for industrial applications. Household chlorine bleach is typically sold in retail stores as an 8.25% sodium hypochlorite solution.

EPA-registered bleach products are described as sanitizers and disinfectants. Check the label to see if the product has an EPA registration number and follow the manufacturer's safety and use instructions. (Please see the "How to Find EPA Registration Information" section below for more information.) Pay particular attention to the mixing "recipe" and the required contact time (i.e., the time the solution must remain on a surface to be effective) for each use. Remember, the recipe and contact time are most likely different for sanitizing and disinfecting.

If you are not using an EPA-registered product for sanitizing and disinfecting, please be sure you are following state or local recommendations and/or manufacturer's instructions for creating safe dilutions necessary to sanitize and/or disinfect surfaces in your early care and education environment. Using too little (a weak concentration) bleach may make the mixture ineffective; however, using too much (a strong concentration) bleach may create a potential health hazard.

To safely prepare bleach solutions:

- Dilute bleach with cool water and do not use more than the recommended amount of bleach.
- Select a bottle made of opaque material.
- Make a fresh bleach dilution daily; label the bottle with contents and the date mixed.
- Wear gloves and eye protection when diluting bleach.
- Use a funnel.
- Add bleach to the water rather than the water to bleach to reduce fumes.
- Make sure the room is well ventilated.
- Never mix or store ammonia with bleach or products that contain bleach.

To safely use bleach solutions:

- Apply the bleach dilution after cleaning the surface with soap or detergent and rinsing with water if visible soil is present.

- If using a spray bottle, adjust the setting to produce a heavy spray instead of a fine mist.
- Allow for the contact time specified on the label of the bleach product.
- Apply when children are not present in the area.
- Ventilate the area by allowing fresh air to circulate and allow the surfaces to completely air dry or wipe dry after the required contact time before allowing children back into the area.
- Store all chemicals securely, out of reach of children and in a way that they will not tip and spill.

Adapted from: California Childcare Health Program. 2013. Safe and Effective Cleaning sanitizing and Disinfecting. *Health and Safety Notes* (March).

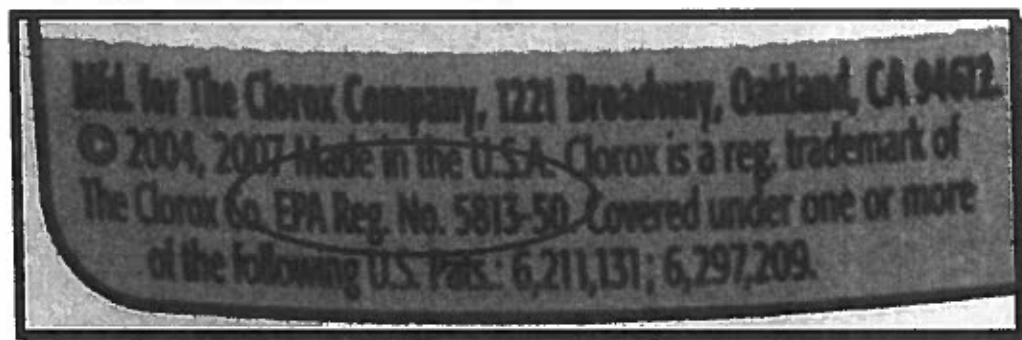
To Review:

- Determine if the surface requires sanitizing or disinfecting;
- Check the labels of all products to see if they are EPA-registered; there are alternatives to chlorine bleach;
- Many chlorine bleach products (8.25% sodium hypochlorite) are now EPA-registered
 - If EPA-registered, you must follow the label instructions for “recipes” and contact times;
- If using non-EPA-registered products, follow state or local recommendations for “recipes” and contact times;
- Prepare and use the solutions safely;
- Use products that are safe for oral contact when used on food contact surfaces or on items that may be mouthed by children.

How to Find EPA Registration Information

The following information is intended to serve as a visual guide to locating EPA registration numbers and product label information. Any products featured in the examples below are used for illustrative purpose only, and do not represent an endorsement by the National Resource Center for Health and Safety in Child Care and Early Education (NRC). The NRC does not endorse specific products.

1. Locate the EPA Registration number on the product label:



- Go to <http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1>. Enter this number into the box titled "EPA Registration Number" and click the Search button:

EPA United States Environmental Protection Agency

SEARCH | HOME | ABOUT EPA | CONTACT US | PRIVACY | SECURITY | SITEMAP

Pesticide Product Label System [Contact Us](#)

You are here: EPA Home > Pesticides > Pesticide Product Labels > Pesticide Product Label System (PPLS)

Product Labeling

Pesticide Product Label System (PPLS)

The Pesticide Product Label System (PPLS) provides a collection of pesticide product labels (Adobe PDF format) that have been approved by EPA under Section 3 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). New labels were added to PPLS on December 03, 2012. [For More](#)

PPLS has many new features!

Find a Pesticide Product Label

Below are three options to help you locate labels.

Product Name:

Enter the name of the product. As you type, options will be presented to you. Keep in mind that product names may vary, so if you don't find the product you are looking for, try the [EPA Registration Number Search](#) below.

Company Name:

Enter the name of the company. Some companies may have several divisions that manufacture and market pesticides products. You can select among these divisions using the drop-down list or choose the rest of the company name (e.g., "ayer" or "SM") to see products associated with all of the divisions.

EPA Registration Number:

The EPA Registration Number (EPA Reg. No.) appears on all registered pesticides sold in the United States. It is usually found on the back panel of the label along with the detailed instructions for use. Enter the company number (the first set of digits before the dash) to see all products marketed by that company or the entire number including the dash to view the label for a particular product. [More...](#)

Information for Webmasters: [EPA Pesticide Cookie Notice](#)

- 3. You should see the details about the product, and beneath that, a portable document file (PDF) bearing the date that this product was registered by the EPA (if there is a list, the PDF at the top of the list should show the most recent approval). Click on that most recently-approved PDF. You will need a PDF file reader to access this file. There are a variety of

You will need Adobe Reader to view some of the files on this page. See EPA's PDF page to learn more.

Provided below is the information for the product you selected. To view the label, click on the date in the Approved Date Field. The latest label is at the top of the list.

[Search Again](#)

Details for PUMA

EPA Registration Number: 5813-100

Company Name: CLOROX CO., THE
Division Name: C / D FS&RC
P.O. Box: 493
City, State Zip: PLEASANTON, CA 945660803
Current Status (Date): Active (JANUARY 12, 2011)
Alternate Name(s): CLOROX DISINFECTING BLEACH1 CLOROX GERMICIDAL BLEACH2 CLOROX MULTI-PURPOSE BLEACH1 CLOROX REGULAR-BLEACH1 CONCENTRATED CLOROX DISINFECTING BLEACH1 CONCENTRATED CLOROX GERMICIDAL BLEACH1 CONCENTRATED CLOROX MULTI-PURPOSE BLEACH1 CONCENTRATED CLOROX REGULAR-BLEACH

Labels and Amendments

EPA Reg. No.	Product Name	Approved Date
5813-100	PUMA	February 13, 2012 (PDF)
5813-100	PUMA	December 22, 2011 (PDF)
5813-100	PUMA	September 21, 2011 (PDF)
5813-100	PUMA	April 27, 2011 (PDF)
5813-100	PUMA	January 12, 2011 (PDF)

1-5 of 5

readers available and most are free.

- The PDF should come up on your screen. Scroll down to the section that shows the directions for using the product as a sanitizer or disinfectant. Follow the directions listed for your intended use.

For Sanitizing -or- To Sanitize			
Work Surfaces	2 tsp [1/3 oz]	1 Gallon	Wash, rinse, wipe surface area with bleach solution for [at least] 2 minutes. Let air dry. -or- To sanitize work surfaces, wash, rinse and wipe surface area with a solution of 2 teaspoons of bleach per 1 gallon of water for [at least] 2 minutes. Let air dry.
Dishes, Glassware, Utensils	2 tsp [1/3 oz]	1 Gallon	Wash and rinse. [After washing,] soak for [at least] 2 minutes in bleach solution. [drain] and [let] air dry. -or- To sanitize dishes, glassware, and utensils, wash and rinse. [After washing,] soak for [at least] 2 minutes in a solution of 2 teaspoons of bleach per 1 gallon of water. [drain] and air dry.
Refrigerators, Freezers	2 tsp [1/3 oz]	1 Gallon	Remove food [from refrigerator -and/or- freezer]. Wash, rinse, wipe surface area with bleach solution for [at least] 2 minutes. Let air dry.
Plastic Cutting Boards	2 tsp [1/3 oz]	1 Gallon	Wash and rinse. [After washing,] soak for [at least] 2 minutes in bleach solution. let air dry.
Wooden Cutting Boards	2 Tbsp [1 oz]	1 Gallon	Wash, wipe, or rinse with detergent and water, then apply sanitizing -or- bleach solution. Let stand 2 minutes. Rinse with a solution of 2 teaspoons of this product per gallon of water. Do not rinse or soak equipment overnight.
Baby Bottles	2 tsp [1/3 oz]	1 Gallon	Wash and rinse. [After washing,] soak for [at least] 2 minutes in bleach solution. let air dry.
Garbage Cans	1/2 cup [4 oz]	1 Gallon	After washing and rinsing, brush inside with bleach solution. Let stand for 5 minutes before rinsing.
Pet [Food -and/or- Water] Bowls	2 tsp [1/3 oz]	1 Gallon	Wash and rinse. [After washing,] soak for [at least] 2 minutes in bleach solution. let air dry.
[Kitchen] [Dish]cloths & Rags	1/2 cup [4 oz]	1 Gallon	[Pre-]wash items, then soak in solution for [at least] 5 minutes. Rinse and air dry.

For Disinfecting -or- To Disinfect			
Floors, Walls, Vinyl, Glazed Tiles -and/or- [insert relevant use site(s) from List B]	1/2 cup [4 oz]	1 Gallon	[Pre-]wash surface, [mop or] wipe with bleach solution. Allow solution to contact surface for [at least] 5 minutes. Rinse well and air dry. -or- To disinfect floors, walls, vinyl, and glazed tiles, pre-wash surface, then mop or wipe with a solution of 1/2 cup of bleach per 1 gallon of water. Allow solution to contact surface for [at least] 5 minutes. Rinse well and air dry. [For Pseudomonas aeruginosa, Canine parvovirus and Feline calicivirus virus, let stand for -or- contact time is 10 minutes.]
Bathrooms, Showers [& Kitchen] Sinks	1/2 cup [4 oz]	1 Gallon	[Pre-]wash surface [and] wipe with bleach solution. Allow solution to contact surface for [at least] 5 minutes. Rinse well and air dry.
Nonporous Baby Toys [& Furniture]	1/2 cup [4 oz]	1 Gallon	[Pre-]wash surface, soak or wipe with bleach solution. Allow solution to contact surface for [at least] 5 minutes. Rinse well and air dry.
Nonporous pet toys -and/or- accessories -or- pet areas	1/2 cup [4 oz]	1 Gallon	[Pre-]wash surface, soak or wipe with bleach solution. Allow solution to contact surface for [at least] 5 minutes. Rinse well and air dry.
Toilet Bowl	3/4 cup	1 Gallon	Brush toilet. Pour this product into bowl. Brush bowl, making sure to



A Final Note

Remember that any cleaning, sanitizing or disinfecting product must always be safely stored out of reach of children. Always follow the manufacturer's instruction for safe handling to protect yourselves and those in your care.

References:

1. California Childcare Health Program. 2009. Sanitize safely and effectively: Bleach and alternatives in child care programs. *Health and Safety Notes* (July). http://www.ucsfchildcarehealth.org/pdfs/healthandsafety/SanitizeSafely_En0709.pdf.
2. U.S. Environmental Protection Agency. 2012. Pesticide Product Label System Website. <http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1>.
3. U.S. Environmental Protection Agency. 2012. What are antimicrobial pesticides? Pesticides Website. http://www.epa.gov/oppad001/ad_info.htm.
4. U.S. Environmental Protection Agency. 2012. Selected EPA-registered disinfectants. Pesticides Website. www.epa.gov/oppad001/chemregindex.htm.
5. Grenier, D., D. Leduc, eds. 2008. *Well beings: A guide to health in child care*. 3rd ed. Ottawa: Canadian Paediatric Society.
6. Rutala, W. A., D. J. Weber, the Healthcare Infection Control Practices Advisory Committee (HICPAC). 2008. *Guideline for disinfection and sterilization in healthcare facilities, 2008*. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Preparedness, Detection, and Control of Infectious Diseases, Division of Healthcare Quality Promotion. http://www.cdc.gov/hicpac/pdf/guidelines/Disinfection_Nov_2008.pdf.
7. U.S. Department of Health and Human Services, Public Health Service, Food and Drug Administration. 2009. *Food code*. College Park, MD: Food and Drug Administration. <http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/FoodCode/FoodCode2009/default.htm>