**BLEACH SOLUTION TIPS**

- Use bleach only when and where required.
- Read and follow label of any cleaners you use.
- Wear label-required personal protective equipment, including gloves when cleaning blood or vomit.
- Always add bleach to water – to avoid bleach splashes caused by adding water to bleach.
- Apply bleach solutions directly to a disposable cloth, paper towel, or a non-disposable cloth that is laundered in hot water and dried after each use. DO NOT apply bleach directly to surfaces. DO NOT use a sponge.
- If you must use a spray bottle, set the nozzle to produce a heavy stream instead of a fine mist.
- Watch out for small rooms and confined spaces with poor air flow.
- Open windows and doors or turn on exhaust fan.

**POINTS TO REMEMBER**

Diluted bleach is a very effective sanitizer. Surfaces must be cleaned first to remove dirt; this will make sure that sanitizing the surface is effective.

Set up a specific location to mix the bleach.

Assign someone the responsibility to mix the bleach solution.

Keep bleach out of direct sunlight.

NEVER mix bleach with other cleaners. Poisonous gases may be released.

**WARNING SIGNS**

If you have ANY of these problems when working with bleach, talk to your doctor. These breathing problems are not normal!

- WHEEZING
- CHEST TIGHTNESS
- COUGH
- SHORTNESS OF BREATH

**Keep This Number Handy**

**In Case Of An Emergency**

**POISON CONTROL**

1.800.222.1222

Use less-toxic, certified cleaning products when possible. Green Seal and Ecologo are reliable certifications.
USE BLEACH SAFELY AT WORK

You might not expect it, but bleach used to clean surfaces at work can trigger asthma attacks and may cause new asthma among workers.

Examples of workers who are exposed to bleach include: janitors, housekeepers, environmental engineers, hospital workers, restaurant workers and maintenance and agricultural workers.

This brochure offers some guidelines for employees to work safely with bleach.

USE BLEACH ONLY WHEN REQUIRED — and in the right amount.

Check label for sodium hypochlorite concentration.
Remember that BLEACH CONCENTRATE is stronger than REGULAR BLEACH.
Mix the correct solution.
Mix bleach with cool water.
Make bleach solution fresh daily.

**USE BLEACH SAFELY AT WORK**

**WORKERS CAN FOLLOW THESE STEPS:**

1. **Employees Should Clean First**
   Wash ALL NON-EATING SURFACES with soap and water.
   Rinse thoroughly.

2. **Employees Should Sanitize or Disinfect as needed**

   **SANITIZE:** SURFACES.
   Wet and wipe entire surface with bleach solution or commercial product* and let surface air dry for 5 minutes to REDUCE germs to safer levels.

   **DISINFECT:** TOILET AREAS, AND WHEN CLEANING BLOOD OR VOMIT.
   Wet and wipe entire surface with bleach solution or commercial product*. Let surface air dry for 5 minutes to DESTROY most germs.

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**Definitions:**

**CLEANING**— involves scrubbing, washing and rinsing to remove visible soil and debris. The cleaning solution is made up of detergent and water.

**SANITIZING**— is covering the cleaned area with a sanitizing solution such as bleach and water. Sanitizing kills enough germs so that it would be unlikely that someone could become ill from contact with that surface.

**DISINFECTING**— is covering an already cleaned area with a disinfecting agent, such as a stronger bleach and water solution. This kills all the germs on a surface.

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**REGULAR BLEACH**
5.25-6.15% sodium hypochlorite

<table>
<thead>
<tr>
<th>SANITIZE</th>
<th>DISINFECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 tsp. bleach</td>
<td>1 gallon water</td>
</tr>
</tbody>
</table>

**BLEACH CONCENTRATE**
8.25% sodium hypochlorite

<table>
<thead>
<tr>
<th>SANITIZE</th>
<th>DISINFECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 tsp. bleach concentrate</td>
<td>1 gallon water</td>
</tr>
</tbody>
</table>

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*refers to EPA-registered sanitizing and disinfecting cleaners without bleach. www.epa.gov.

The MSU OEM Research Team would like to thank the MA Health Department for their substantial contribution to the content of this brochure.