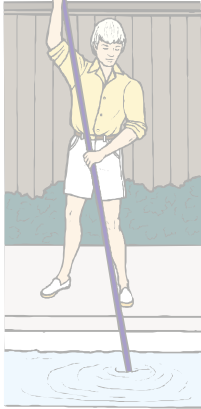




# SWIMMING POOL and SPA SANITATION



April 1999

## Why is Pool and Spa Sanitation Important?

The purpose of sanitation is to reduce the numbers of microorganisms, such as bacteria and viruses, to safe levels. The warm water of swimming pools and the hot water and low volume of spas is a favourable environment for the growth of microorganisms. Swimming pool and spa users can get sick if pool or spa water is not properly sanitized. Pool and spa owners must be vigilant in ensuring bather safety by carefully monitoring water balance (adequate sanitizer levels, pH, total alkalinity, and calcium hardness).

## Why is Algae Control Important?

Hot weather, sunlight and insufficient sanitizer levels can stimulate growth of algae. Algae is not harmful to bathers but can create a potential hazard by making pool and spa surfaces slippery and the water cloudy. The presence of algae reduces the effectiveness of sanitizers as more of the available sanitizer is taken up by the algae. A reduction in sanitizer level increases the potential for the growth of microorganisms. Regular use of a sanitizer should prevent the excessive growth of algae. However, algicides such as copper sulphate-based products or quaternary ammonium chloride-based products may sometimes be required to tackle specific algae problems.

## How Do I Sanitize My Swimming Pool or Spa?

Chlorine-based and bromine-based products are effective sanitizers which also control algae. When added to water, chlorine-based products release hypochlorous acid and bromine-based products produce hypobromous acid. Hypochlorous acid and hypobromous acid are the primary chemical compounds responsible for sanitation in pools and spas. Chlorine and bromine can be purchased either as a chemical (pucks, tablets, or liquid) or as a device (generator or dispenser).

## How Much Sanitizer Should I Use?

Swimming pool and spa chemicals must be used according to the directions on the label. The label indicates how much of the product to use as well as how to handle the product safely. So you should always:

### READ THE LABEL BEFORE USING THE PRODUCT

Swimming pool and spa devices which generate or dispense a sanitizer have detailed instructions for use in the user's manual, on the package and on the device itself.

### ALWAYS READ THE LABEL AND THE USER'S MANUAL BEFORE INSTALLATION AND USE OF A DEVICE



In addition to using the chemical or device according to label directions, regular testing will help you determine if the level of sanitizer in your pool or spa is adequate to protect swimmers from disease-causing microorganisms. This level is called free available chlorine or equivalent bromine. Water testing can be done using good quality test kits or by bringing water samples to your swimming pool or spa dealer.

### Recommended minimum free available chlorine or equivalent bromine:

- Residential Pools: 1-3 ppm
- Residential Spas: 3-5 ppm
- Commercial pools: provincial and/or municipal regulations must be followed.



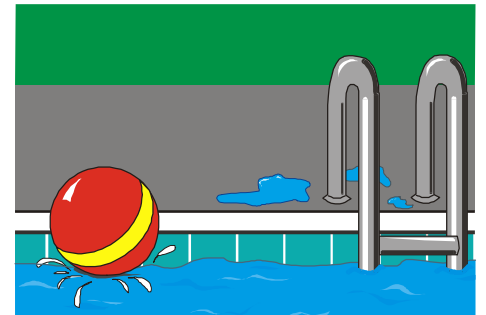
The presence of organic matter in swimming pool water reduces the effectiveness of sanitizers. In some cases, the label directions of swimming pool sanitizers and algicides may instruct residential pool owners to maintain a minimum chlorine level of 0.6 ppm. Reducing sanitizer levels from 1-3 ppm (as recommended above) to 0.6 ppm is possible only when the organic matter content in swimming pool water is controlled. Check the directions for use on the product label.

For further information on swimming pool and spa products, refer to the following PMRA handouts:

- ➔ *Devices for Use in Swimming Pool and Spas*
- ➔ *Copper Sulphate Algicides for Swimming Pool Use*
- ➔ *Regulation of Swimming Pool and Spa Chemicals*

Manufacturers, distributors, and retailers should also refer to the following regulatory directives:

- ➔ *Regulatory Directive 93-05: Scheduling of Selected Pool and Spa Chemicals*
- ➔ *Regulatory Directive 93-06: Model Labels for Pool and Spa Products Not Eligible for Scheduling*
- ➔ *Regulatory Directive 93-21: Initial Product/Private Label Registration Process*



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You can also visit our web site at  
<http://www.hc-gc.ca/pmra-arla>



### General Safety Precautions When Using Swimming Pool and Spa Sanitation Products

- Carefully read all label instructions and precautions before using the products.
- Do not smoke, drink, or eat while applying the products.



### General Safety Precautions After Using Swimming Pool and Spa Sanitation Products

- Always wash your hands thoroughly after using any of these products.
- Wipe clean all surfaces that comes in direct contact with food, such as counters, tables and stovetops.
- Always store the products out of reach of children and pets and away from food and beverages.

Please note that these are general precautions. You should consult the label of the product for clarification and additional information.

### In Case of Accidental Poisoning

Seek medical attention or call a poison control centre immediately.

In case of accidental poisoning of pets seek veterinary attention immediately.

### Disposal

Do not reuse empty containers. Dispose of in household garbage.

Unused or partially used products should be disposed of at provincially or municipally designated household hazardous waste disposal sites.

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**2250 Riverside Drive**  
**Ottawa ON K1A 0K9**

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