

# Swimming Pool Disinfectants

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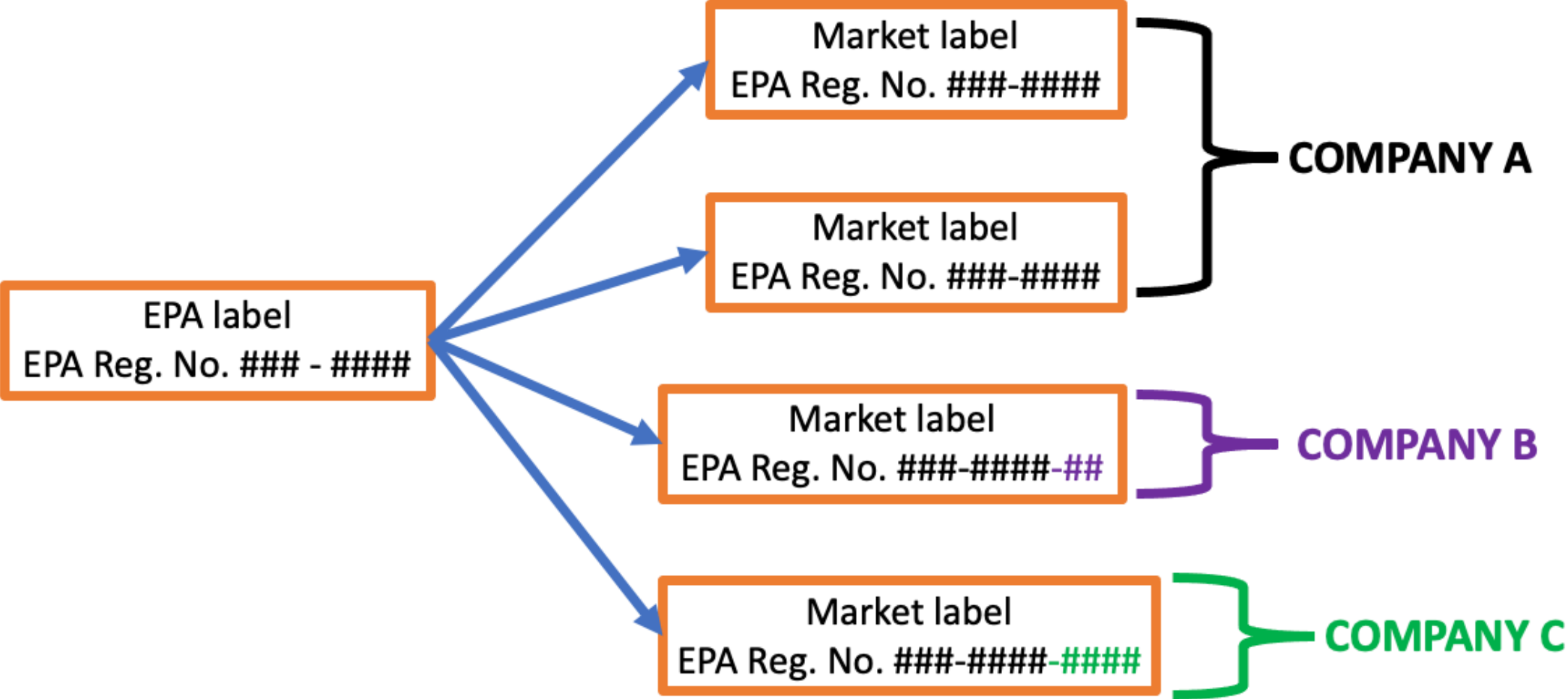
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# Overview

- Registrations data
- Most common active ingredients
- Common label elements
  - Physical and Chemical Hazards
  - Environmental Hazards
  - Chlorine residual & pH requirements



# Many products developed from one EPA label



# Registrations Data

- 397 Oregon-registered products (137 EPA registrations)
- All general-use
- Most products are:
  - Solid (granular, tablet, etc.; 297 products)
  - Labeled with “DANGER” signal word (353 products)



# Most Common Active Ingredients

1. Calcium hypochlorite	92 products
<b>2. Trichloro-s-triazinetriene</b>	92 products
<b>3. Sodium dichloro-s-triazinetriene</b>	62 products
4. Sodium hypochlorite	35 products
<b>5. Sodium dichloroisocyanurate dihydrate</b>	25 products

**Chlorinated isocyanurates** (currently under registration review)

# Physical and Chemical Hazards

**PHYSICAL AND CHEMICAL HAZARDS:** Strong oxidizing agent: DO NOT mix with other chemicals. Mix only with water. Never add water to product. Always add product to large quantities of water. Use clean, dry utensils. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion. Contamination with moisture, organic matter or other chemicals will start a chemical reaction and generate heat, hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open air, well ventilated area. Flood area with large volumes of water.



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# Environmental Hazards – NPDES for Large Containers

{Environmental Hazard statement for end-use products in containers less than 5 gallons (liquid) or less than 50 pounds (solid)}

**ENVIRONMENTAL HAZARDS:** This product is toxic to fish and aquatic organisms.

{Environmental Hazard statement for end-use products in containers greater than or equal to 5 gallons (liquid) or greater than or equal to 50 pounds (solid)}

**ENVIRONMENTAL HAZARDS:** This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of waste. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollution Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.



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# Chlorine Residual & pH Requirements

## **MAINTENANCE TREATMENT**

Ensure all pool equipment and systems are in proper working condition, and that the water is balanced. When using other products as outlined in directions for this product, always follow directions on those products. Adjust and maintain pool water pH in the range of 7.2-7.6 as indicated by a suitable test kit. Superchlorinate the pool with a suitable granular product to establish a free available chlorine residual of 1.0 – 3.0 ppm. For maximum effectiveness, it is recommended that the pool be first stabilized with 25-35 ppm of Cyanuric Acid to reduce chlorine loss in sunlit pools. This product introduces chlorine and additional Cyanuric Acid into the pool to assure a stabilizing effect.

**REENTRY:** REENTRY INTO TREATED SWIMMING POOLS IS PROHIBITED ABOVE LEVELS OF 3 PPM OF CHLORINE DUE TO RISK OF BODILY INJURY.



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# Thank you!

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