**Concrete Pool Shell Protector™ CPSP**

**CONCRETE PROTECTION AND WATERPROOFING**

**MANUFACTURER**

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**PRODUCT DESCRIPTION**

**AQURON® CPSP™** is a clear, aqueous borne, sub-surface densifying, molecular bonding and waterproofing solution/treatment.

**BASIC USE**

**AQURON® CPSP™** is a permanent, clear treatment/preservative/sealant solution for new or old concrete installations. **AQURON® CPSP™** will seal the matrix and significantly preserve its imbedded steel. **AQURON® CPSP™** is a highly reaction catalytic agent which reacts with free alkali and/or alkaline hydrates by internally producing a silica hydro-gel which fills the pore spaces and the voids around aggregate. Furthermore, alkali is converted to a neutral compound structure, reducing the potential for internal chemical reactions. More density is added, additional bonding strength is provided and concrete is permanently hydrostatically sealed from within. **AQURON® CPSP™** is an ideal product for concrete or other masonry surfaces to be painted or plaster coated since it enhances the bonding quality of the surface. **AQURON® CPSP™** prevents peeling, cracking and loss of bond caused by capillary moisture or internal chemical reactions that can cause saponification. **AQURON® CPSP™** will not alter the appearance of the surface or physical characteristics. The use of **AQURON® CPSP™** will significantly protect concrete from damages (spalling, etc.) caused by freeze-thaw cycles. **AQURON® CPSP™** neutralizes existing internal corrosives such as acids and chlorides preventing internal chemical reactions. Also, **AQURON® CPSP™** severely retards the rusting or corroding of imbedded steel. Another added benefit of using **AQURON® CPSP™** is the virtual elimination of EFFLORESCENCE staining due to the inability of water to penetrate the shell and the ability of **AQURON® CPSP™** to stabilize the concrete’s chemical makeup. **AQURON® CPSP™** will also prevent chemically treated pool water from passing through the pool shell and leaching into the ground water supply.

**SOME ATTRIBUTES**

- Waterproofs
- Strengthens concrete
- Protects reinforcing steel
- Helps maintain chemical balance
- Increases bond strength between shell and plaster coat
- Reduces bleed through stains — EFFLORESCENCE especially on vanishing edge applications
- Applied form negative or positive side
- Reduces shrinkage cracking and slab curl
- Freeze thaw protection
- Deep penetration into concrete (3 to 5 inches!)
- Water borne = environmentally safe
- Prevents pool chemicals from leaching into ground
- water supply
- Certified Applicators

**APPLICABLE STANDARDS**

- ASTM C-67 Section 7 Water absorption
- ASTM-76 Section 9 Suction
- ASTM-C-67 Section10 Efflorescence
- ASTM C-666 Freeze-thaw resistance
- ASTM C-23-69 Artificial weathering
- ASTM C-666 Salt attack resistance
- ASTM D 5084-91 Permeability
- AASHTO T260 Chloride ion content
- AASHTO T259-78 Chloride ion penetration
- VOC/VOS Compliant

**COMPOSITION**

**AQURON® CPSP™** is a highly reactive catalytic agent in a water borne proprietary colloidal silicate base which produces a silica-hydro gel below the surface and inside the concrete’s matrix. It cannot function if there are:

1. Other sealers on the concrete surface
2. Polymers in the mix
3. Shotcrete with rebound

Sealers and polymers will prevent proper penetration. Rebound does not have the cement particles needed to chemically react and realize the full waterproofing potential of the product.

**PRECAUTIONS**

- Spills or spray droplets in contact with glass should be removed immediately by flushing with water.
- DO NOT ALLOW TO DRY, as etching can occur.
- Some discoloration of aluminum can occur.
- Do not apply **AQURON® CPSP™** when air and/or substrate temperatures are less than 37°F/2.8°C and will not decrease to less than 37°F/2.8°C for 6 hours.

**PHYSICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>clear</td>
</tr>
<tr>
<td>Odor</td>
<td>none</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.11±</td>
</tr>
<tr>
<td>Flash point</td>
<td>none</td>
</tr>
<tr>
<td>pH</td>
<td>12±</td>
</tr>
<tr>
<td>Toxicity</td>
<td>none</td>
</tr>
<tr>
<td>Boiling point</td>
<td>230°F/110°C</td>
</tr>
<tr>
<td>Freeze temperature</td>
<td>32°F/0°C</td>
</tr>
<tr>
<td>Hazardous vapors</td>
<td>none</td>
</tr>
</tbody>
</table>

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PHYSICAL PROPERTIES CONT...

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight per gallon</td>
<td>9.18 lbs/4.16 kg</td>
</tr>
<tr>
<td>Environmentally</td>
<td>neutral</td>
</tr>
<tr>
<td>User</td>
<td>friendly</td>
</tr>
<tr>
<td>Shelf life</td>
<td>Indefinite</td>
</tr>
<tr>
<td>Freeze harm</td>
<td>none (allow to thaw completely)</td>
</tr>
<tr>
<td>Surface bond quality</td>
<td>Excellent</td>
</tr>
<tr>
<td>Flammability</td>
<td>Excellent</td>
</tr>
<tr>
<td>VOC/VOS content</td>
<td>none</td>
</tr>
<tr>
<td>Resistance to UV</td>
<td>Excellent</td>
</tr>
<tr>
<td>Paintable</td>
<td>yes</td>
</tr>
<tr>
<td>Pollutants</td>
<td>nil</td>
</tr>
<tr>
<td>Waste disposal methods</td>
<td>Non-hazardous</td>
</tr>
<tr>
<td>Resistance to abrasion</td>
<td>Excellent</td>
</tr>
<tr>
<td>Polymerization</td>
<td>Excellent</td>
</tr>
<tr>
<td>Solids before applied</td>
<td>100%</td>
</tr>
<tr>
<td>R-Factor</td>
<td>increase up to 20</td>
</tr>
</tbody>
</table>

**Recommended coverage** . . 150 sq. ft. per US gallon/3.5m2 per liter

INSTALLATION

**Job Conditions**

1. Do not proceed with application of AQURON® CPSP™ when ambient temperature and/or substrate temperatures are less than 37°F/2.8°C or forecasted to drop below 37°F/2.8°C during the next 6 hours.
2. Should temperatures be extremely hot, cool surface with sufficient water to decrease temperatures.
3. Caution should be taken in windy conditions as AQURON® CPSP™, if allowed to dry, can etch glass or dull shiny aluminum. If contact is made with glass or aluminum, rinse surface immediately with water before AQURON® dries on surface.
4. As a water borne product AQURON® CPSP™ must have access to the surface, any previous coatings must be removed.
5. Do not dilute. Use as supplied.
6. Once AQURON® CPSP™ is applied wait 24 hours or until surface is dry before applying plaster coat.
7. AQURON® CPSP™ only seals the concrete itself, not fractures.

**Application Procedure**

For new or Established Concrete

1. AQURON® CPSP™ must be applied with a high pressure airless sprayer with spray tip size as follows:
   - Steel Troweled Concrete & Smooth Plaster .013–.015
   - Shotcrete .015–.019
   - Gunite .019
   - Spray tip fan width should be 10”–14” wide.
2. Pre-wet area of application with water to cool concrete that is extremely hot (95°F or higher). All pooled and puddle areas must be dispersed, continue to keep area damp until AQURON® CPSP™ has been applied.
3. Apply AQURON® CPSP™ at a rate no less than 1 liter to 3.5m2/150 sq. ft. per US gallon. Normally to achieve this rate of application of AQURON® CPSP™ at least 2 applications will be needed. First application covering area in one direction, then applying second application after first has penetrated surface (do not allow first application to dry, apply second application as soon as surface sheen has dissipated). Even coverage is achieved by applying the two applications at 90° to each other; i.e., a crisscross pattern!
4. Start application holding spray tip approximately 8”–10”/200–300mm from concrete surface, make application using overlapping spray pattern with a fanning motion at the end of each pass.
5. Entire area being treated is to be saturated, but do not allow AQURON® CPSP™ to puddle. Disperse puddled areas with broom 15–30 minutes after application is completed (do not allow puddles of AQURON® CPSP™ to dry).
6. Always start application at lowest possible area and proceed to higher elevations. On vertical application (walls) start at the bottom and proceed up the vertical surface with horizontal and vertical strokes to insure coverage.
7. When application is to weeping hydrostatic concrete, at least doubling step 3 of the Application Procedures are necessary with the second applied immediately following the first.

CLEAN-UP AND SAFETY

- Caution must be taken as treated surfaces may be slippery until completely cured.
- No special clothing, breathing apparatus, goggles or gloves are necessary, but in enclosed areas it is advisable to wear an appropriate respirator to avoid possible irritation to breathing.
- Attention should be made to watches, eyeglasses, etc., as AQURON® CPSP™ can etch glass or discolor aluminum if allowed to dry.
- Clean equipment using water and mild soap. Never store spray equipment without cleaning and following manufacturer’s recommendations for storage between usage.

Shelf Life

Self life is indefinite provided containers are kept tightly sealed when not in use.

PACKAGING

AQURON® CPSP™ is available in 5 gallon/18.9 liters and 55 gallon/208.2 liters drum size.

MAINTENANCE

Special maintenance of treated area is not required.

TECHNICAL SERVICES

Technical information and assistance may be obtained from your local dealer, or by calling the technical department of the AQURON Aquatics Division at 770 355-6490

E-mail aquaticsdivision@aquron.com

AQURON Corp. HQ at (972) 722-5444, (800) 342-4649 Office, or (972) 722-6412 FAX or toll free FAX (888) 412-1543

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