Swab
Closed-Loop Heating and Cooling System Cleaner

TECHNICAL DATA SHEET

Effects a closed-loop system to keep it running right.

Industrial-Grade Swab removes scale and corrosion by-products from hot water re-circulating boilers and chilled water systems. It tackles scale and its causes right at their source to eliminate problems before they happen.

Use Swab for HVAC closed loops heating and cooling systems in large industrial facilities, manufacturing, office buildings, lodging, retail, health care, airports, schools and universities.

• Cleans and prevents the formation of water scale and mineral deposits
• Prevents buildup and clogging
• Maintains effectiveness without the need to increase system temperature, saving energy and costs
• Eliminates the need for system shutdown, saving downtime and system start-up costs
• Harmless on metal surfaces, avoiding undue corrosion
• Safer to handle compared to standard acidic cleaners
• Compatible with other treatment products so that you can tailor treatments to your specific needs

Problems Caused By Scale:
Poor water circulation, leading to corrosion
Reduction in heat transfer
Increase in downtime and system start-up costs
Equipment cannot maintain optimum performance levels

Solution:
Swab is a complete detergent that controls and removes scale and other accumulated mineral deposits. Its unique blend of polymeric dispersing agents and corrosion inhibitors works with the system without having to shutdown, increase temperature or re-passivate after use.

Effectively Removes:
<table>
<thead>
<tr>
<th>Scale</th>
<th>Calcium Carbonate</th>
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<tbody>
<tr>
<td>Mineral Deposits</td>
<td>Iron &amp; Phosphate Ion Deposits</td>
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Components Protected:
- Heat Exchangers
- Condenser Surfaces
- Water Lines
- Piping
- Valves
- Tower Fill
- Safe on Ferrous & Non-Ferrous Metal Compounds

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Industrial-Grade Swab Closed-Loop System Cleaner removes scale and corrosion byproducts from hot water re-circulating boilers and chilled water systems. It tackles scale and its causes right at their source to eliminate problems before they happen. Swab cleans and prevents the formation of water scale and mineral deposits, while preventing buildup and clogging. It maintains effectiveness without the need to increase system temperature, saving energy and costs. Swab eliminates the need for system shutdown, saving downtime and system start-up costs. It is harmless on metal surfaces, will not cause undue corrosion, and is safer to handle compared to standard acidic cleaners. Swab is compatible with other Continental Research treatment products so that you can tailor treatments to your specific needs.

**DIRECTIONS:** Swab can be fed into a system using a chemical bypass feeder or using a chemical metering pump. It is recommended to install a side stream filter on closed-loop systems. The filter will catch and dispose of the deposits that SWAB will lift off and remove from the system.

**APPLICATION RATE:** Apply diluted solution at a rate based upon severity of deposit build-up. Use 1-2 pints of SWAB per 1,000 gallons of system water. More Swab can be applied if a more aggressive cleaning is necessary.

**WARNING:** May be harmful if swallowed. Causes mild skin irritation. Causes eye irritation. Keep container tightly closed. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. Use personal protective equipment as required.

**FIRST AID:**
- **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician if any difficulties persist. EYES: Flush eyes with a large amount of water for 15 minutes. Seek medical attention immediately if any irritation persists. INGESTION: If person can swallow, give 2 glasses of water to drink. DO NOT INDUCE VOMITING! After first aid, seek appropriate in-plant, paramedic, or community medical support.
- **EYES:** Flush eyes with a large amount of water for 15 minutes. Seek medical attention immediately if any irritation persists. After first aid, get appropriate in-plant, paramedic, or community medical support.
- **SKIN:** Wash affected areas thoroughly with soap and water for at least 15 minutes. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Seek medical attention if any irritation persists. INGESTION: If person can swallow, give 2 glasses of water to drink. DO NOT INDUCE VOMITING! After first aid, seek appropriate in-plant, paramedic, or community medical support. Never give anything by mouth to an unconscious person. After first aid, get appropriate in-plant, paramedic, or community medical support.

**CONTAINS (CAS #):** Polymaleic Acid based Polymeric (26099-09-2), Phosphonocarboxylic Acid Polymeric (158105-39-4).

**HMIS Ratings:**
- Health - 1, Flammability - 0, Reactivity - 0, Personal - C.

**KEEP OUT OF REACH OF CHILDREN,**
**READ SAFETY DATA SHEET PROVIDED.**

**SOLD BY:**
**CONTINENTAL RESEARCH CORP.**
PO Box 15204, St. Louis, MO 63110
1-800-325-4869 • www.cccorp.com
24 Hour Fax: 314-776-6810

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**Product Label Information**

**Swab Closed-Loop Heating & Cooling System Cleaner**

- Cleans & prevents the formation of water scale & mineral deposits
- Prevents buildup & clogging
- Maintains effectiveness without the need to increase system temperature – saving energy & costs
- Eliminates the need for system shutdown
- Harmless on metal surfaces

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