Seals and repairs cracks or leaks in steam or hot water heating boilers. Prevents steam boiler surging and will not clog or coat submerged hot water heating coils, controls, vents or valves. Makes a strong, lasting repair on difficult leaks in steam boilers. Tough seal expands and contracts with heat, resists pressure, and is not affected by boiler cleaners. Will not cause priming or foaming.

Boiler Liquid combines instantly with water in the boiler. As the water leaks through the crack, it is vaporized and the oxygen in the air transforms the Boiler Liquid into a strong, solid substance. The heat generated by the boiler further hardens the seal. Contains no petroleum distillates and is safe to use in boilers and systems with plastic or rubber components.

Boiler Liquid can be used on new installations to repair leaky joints, sand holes, etc., which may appear after an installation is completed. Ideal for older installations where corrosion causes leaks and cracks that need to be sealed.

APPROVALS & LISTINGS

Not applicable.

SPECIFIC USES

Use Boiler Liquid to repair leaks in steam and hot water boilers.

SPECIFIC APPLICATIONS*

For use on all hydronic systems including those with rubber or plastic components.

*For special applications which may not be covered on this or other Oatey literature, please contact Oatey Technical Services Department by phone 1-800-321-9532, or fax 1-800-321-9535, or visit our technical database web-site at www.Oatey.com.
DIRECTIONS FOR USE

Note: Not for use in domestic potable water systems.

Shake container thoroughly before using. Will not work on cold, unused boiler. If leak prevents filling boiler, pour boiler liquid through opening nearest leak; this should slow flow enough to fix the boiler. If crack is large, fill with Hercules pro poxy® 20, steel wool or metallic-foil to retard flow. Leaks above the water line can be repaired by filling the boiler above the leak.

Use contents of one can (one quart) for each 850 square feet of Boiler Rating. For boilers over 8,500 square feet use one can for each 1,250 square feet. Conversions: 1 square foot of steam = approx. 240 BTU, 1 boiler H.P. = approx. 34,000 BTU = approx. 140 sq. ft.

<table>
<thead>
<tr>
<th>Boiler Rating Sq. Ft. of Steam</th>
<th>Approx. BTU Equivalent</th>
<th>Quarts of Boiler Liquid Required</th>
<th>House Size (If boiler rating is unknown)</th>
<th>Typical Sq. Ft. of Radiation</th>
<th>Quarts of Boiler Liquid Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>350</td>
<td>85,000</td>
<td>1</td>
<td>2 apartments</td>
<td>500</td>
<td>1</td>
</tr>
<tr>
<td>1,500</td>
<td>360,000</td>
<td>2</td>
<td>4 apartments</td>
<td>800</td>
<td>1</td>
</tr>
<tr>
<td>3,000</td>
<td>720,000</td>
<td>4</td>
<td>8 apartments</td>
<td>1,200</td>
<td>2</td>
</tr>
<tr>
<td>7,000</td>
<td>1,680,000</td>
<td>8</td>
<td>16 apartments</td>
<td>2,200</td>
<td>3</td>
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<tr>
<td>15,000</td>
<td>3,600,000</td>
<td>12</td>
<td>30 apartments</td>
<td>4,000</td>
<td>5</td>
</tr>
<tr>
<td>20,000</td>
<td>4,800,000</td>
<td>16</td>
<td>70 apartments</td>
<td>10,000</td>
<td>8</td>
</tr>
<tr>
<td>50,000</td>
<td>12,000,000</td>
<td>40</td>
<td>120 apartments</td>
<td>17,000</td>
<td>14</td>
</tr>
</tbody>
</table>

For low-pressure steam and hot water boilers including all one or two pipe house-heating systems, vapor and vacuum systems:

Make sure water level is below product addition point. Remove safety valve on top of boiler. Pour in Hercules Boiler Liquid through the safety valve opening. Replace safety valve. Fill boiler with water and allow pressure to go as high as safety valve will permit. Even though the leak stops, keep at normal operating temperature from 24 to 48 hours after all the leaks are stopped. When leaks are severe, it is easier to lower the water below the lowest leak, and pour in Hercules Boiler Liquid, filling the boiler slowly, and keeping the water extremely hot.

For new heating installations:

Partly fill boiler. Fire to normal operating temperature. Remove safety plug or fitting, depending on type of boiler, and pour into opening 1 to 2 quarts of Boiler Liquid. Close opening and fill system gradually, maintaining heat until circulation is complete and all leaks have stopped. Note: If leak prevents firing of boiler, pour Boiler Liquid into the boiler at any opening nearest the leak. This should stop leak enough to fire the boiler.

For high-pressure boilers:

Have the boiler at working pressure. Pour in Boiler Liquid through the pump, injector, feed water or any convenient way. This liquid can be diluted with hot water to make it easier to use. The objective is to get the liquid into the boiler the simplest and quickest way. Use one part Boiler Liquid to 100 to 200 parts water according to the size of the leak.

For hot water heating systems:

Drain system until water is below plug at top of boiler. Pour Boiler Liquid into opening on top of boiler. Replace plug. Refill system slowly, keeping heat above 140°F and making sure all leaks are covered by water. Continue filling and running system until leaks are sealed. Use 1 quart Boiler Liquid for each 400-sq. ft. radiation. For large leaks, double the amount. Boiler Liquid can be used to repair leaks above the water line by filling the boiler above the leak and holding it for several days. The greater the quantity of Boiler Liquid used and the hotter the fire, the quicker the leak will stop.
PHYSICAL PROPERTIES

Specific Gravity: 1.03  
Solubility in water: Completely dispersible  
Boiling Point: 212°F  
Appearance/color/odor: Reddish Brown liquid; Mild odor

WARNINGS OR CAUTIONS

- Read all cautions and directions carefully before using this product.
- The product is intended for use in heating boilers only. It should not be used in domestic (potable) water systems.
- Will not work in a cold, unused boiler.

MATERIAL SAFETY INFORMATION

FOR MORE INFORMATION ON THIS PRODUCT, REQUEST SAFETY DATA SHEET (SDS) #7311E

<table>
<thead>
<tr>
<th>For Delivery By Fax</th>
<th>Call 1-800-321-9535</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet</td>
<td>See SDS section of <a href="http://www.Oatey.com">www.Oatey.com</a></td>
</tr>
</tbody>
</table>

HMIS® ratings  
Health: 1  
Flammability: 0  
Physical hazard: 0

SIZE & PACKING

<table>
<thead>
<tr>
<th>STOCK NUMBER</th>
<th>SIZE</th>
<th>PACKING</th>
<th>WEIGHT/CASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>30115</td>
<td>1 qt.</td>
<td>12</td>
<td>29.2 lbs.</td>
</tr>
<tr>
<td>30120</td>
<td>1 gal.</td>
<td>6</td>
<td>56.9 lbs.</td>
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</tbody>
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