

## **MULTISEAL R13**

Multiseal R13 is a highly concentrated cleaning fluid also suitable for drinking water installations.

Multiseal R13 cleaning fluid removes lime, corrosion and sediments in domestic water and heating installations. Multiseal R13 may also be used on systems with only a limited flow of system water (like some under floor heating systems).

### **GENERALLY**

A chemical cleaning with Multiseal R13 to remove lime, boiler scale and rust, is a quick and safe method for restoring the full capacity of the plant. Multiseal R13 is suitable for all types of water and heating systems for purification of the plants inside - piping, heat exchangers, hot water system, boilers, water heaters, cooling systems and cooling towers can all be cleaned with Multiseal R13.

Multiseal R13 is used as a cleaning fluid directly in water and heating systems with lime sediments in connection with a closed circulation of the water in the plant. Multiseal R13 can be used with most materials in heating equipment such as steel, copper, plastic, brass and galvanized materials. Multiseal R13's high content of inhibitors protects the metal in the heating system from corrosion during the cleaning process. Multiseal R13 is also the right choice for cleaning pumps and valves with lime sediments. Multiseal R13 is particularly suitable for cleaning galvanized cooling towers without service interruption.

### **DIRECTIONS**

Multiseal R13 may be diluted with up to 2 part of water. This solution has to be allowed to circulate in the part of the heating installation that you want to clean. The pH of the diluted solution is < 1. During the cleaning process Multiseal R13 is consumed and the pH value rises. At a pH of 4.5 Multiseal R13 is consumed. When cleaning valves, pump parts and other items, a 50% solution of MULTISEAL R13 and water is recommended. If the water system is highly polluted or contains many lime sediments the cleaning of the system may take several hours.

The actual cleaning process is speeded up with increasing temperature - however, the solvent temperature in the facility should not exceed 50°C. After the cleaning process has been finished, the water system has to be flushed thoroughly several times with clean water, and successively filled immediately with clean water again in order to prevent corrosion through air contact.

If Multiseal R13 is used for descaling of heat exchangers, R13 is used diluted 1:1 with water, and circulated through an external acid tolerant cleaning pump, directly into the heat exchanger until a sufficient de-scaling is achieved. After descaling collect R13 and water in a suitable container, and heat exchanger and pump is now cleaned through with several changes of clean water. Alternatively, connect the heat exchanger directly to the water supply through the cleaning pump. The return water is discharged to sewer. It is recommended to flush the heat exchanger in this manner at least 10 minutes.

### **CONTROL**

Multiseal R13 is consumed during the cleaning process and the pH rises. To check the residual efficacy of the solution applies please use the enclosed pH strips with measuring ranges from 1 -7. Should the check prove that Multiseal R13 is consumed (one measures a pH of 4.5) but there still is some calcium deposits left in the system, the consumed solution is emptied out of the system and a new solution with pH < 1 is added. When all the sediment is washed away or dissolved, discharge the consumed solution. Before the solution is discharge into the sewer system, the solution has to be diluted considerably. Hereafter, flush the system several times with clean water. In order to neutralize any acid residue in the system, we recommend adding 0.2% ash (soda) (available at pharmacy) in the penultimate rinse water. The final flushing of the system must be done with clean water. It is recommended to fill the cleaned system with water again as quickly as possible to avoid corrosion by the atmospheric air

**Safetydata for Multiseal R13**

If Multiseal R13 comes into contact with eyes, rinse immediately with plenty of clean water and seek medical advice. Skin contact: Wash skin immediately with plenty of water. When working with Multiseal R13 wear suitable protective gloves and goggles or face shield.

Moreover, observed the usual precautions when handling chemicals. Keep out of reach of children

R36/38 Irritates the eyes and skin

S 25 Avoid eye contact with the product

S 26 By eye contact: Rinse immediately with plenty of water and seek medical advice

S 28 By skin contact rinse immediately with plenty of water.

**DISPOSAL:**

The product may be discharged to the sewer system in highly diluted form – please refer to the safety data sheet.

**Composition:**

Amidosulfon acid, corrosion inhibitors and other additives.

**Mixing ratio:**

Multiseal R13 is used undiluted or mixed 1:2 with water.

**Shelf Life:**

2 years from date of manufacture.

Protect against frost.

Store cold and dry.

**Attention:**

The above information is given on basis of tests and experience. As we do not have the control over the usage of the product, it is the installer who has to make sure, that the product is suitable for the intended use or installation.