



MAINTENANCE

DESCALER PLUS

HEAVY-DUTY, LIQUID ACID, SCALE REMOVER



DESCRIPTION

DESCALER PLUS is a liquid scale remover for cleaning of deposits that impair efficiency from heat exchange surfaces. The use of **DESCALER PLUS** eliminates costly downtime and expensive manual descaling. The inhibitor contained in **DESCALER PLUS** prevents serious attack of the base metal after dissolution of heat exchanger deposits is complete. **DESCALER PLUS** is recommended for descaling boilers, evaporators, condensers, heaters and coolers.

APPLICATION

DESCALER PLUS is suitable for the removal of hardness scale and/or iron oxides from boilers, condensers, evaporators, heat exchangers, cooling systems, etc. It must not be used on zinc, aluminum, galvanized materials, cast iron and stainless steel.

USE AND DOSING

Pre-clean with **DEGREASER SUPER** or **POWER-KLEEN**, if the equipment to be cleaned is contaminated by oil, grease, sludge or carbonised oil.

For general descaling of heat exchanger units, boilers, evaporators, etc., prepare a 10-30% (typically 20%) solution of **DESCALER PLUS** in fresh water. For optimum results, heat the solution around to 50°C, but no more than 55°C. Keep the system ventilated. Depending on the quantity and nature of deposits, most types of scale will be removed in 4-12 hours. Periodically test solution effectiveness and add **DESCALER PLUS** if required. For heavy deposits, a sample of scale should be immersed in the recommended solution concentration to determine the approximate time necessary for removal.

When the cleaning operation is completed, the system should be drained and flushed thoroughly with fresh water. In order to neutralize any remaining acidity and passivate steel surfaces, a 1% solution of **ALKAL-TREAT** in fresh water should then be circulated for 2-4 hours or until an acceptable pH value is obtained.

For small components, the soak method in an immersion bath can be used.

IMPORTANT INFORMATION AND PRECAUTIONS

- **DESCALER PLUS** should always be used in plastic containers. Always add the product to water, never the reverse.
- Always make sure that equipment has sufficient ventilation to prevent the accumulation of gases.
- Always use gas detection equipment to check that the atmosphere is safe before entering confined spaces for inspection after descaling operations.
- When circulating the descaling solution, always circulate with inlet at the bottom to avoid air pockets and potential entrapment of gaseous reaction products.
- Do not allow acid solution to remain in equipment for more than 24 hours.

- ✓ Highly concentrated product that is easy to use
- ✓ Fast and efficient removal of scale and iron oxides
- ✓ Contains protective corrosion inhibitor against attack on ferrous metals
- ✓ In-situ cleaning eliminates need for extensive dismantling
- ✓ Removes scale from boilers
- ✓ Removes scale from engine cooling water systems
- ✓ Removes scale from condensers and heat exchangers
- ✓ Very effective at removing scale from evaporators
- ✓ Can be stored for a very long time
- ✓ Easy to rinse off and neutralize
- ✓ Composition conforming to MARPOL ANNEX V

PROBLEMS SOLVED

- ✓ Scale
- ✓ Iron oxides

APPLICATION AREAS

- ✓ Boilers
- ✓ Evaporators
- ✓ Condensers
- ✓ Heaters
- ✓ Coolers
- ✓ Steam pipes
- ✓ Air conditioners

PRODUCT CODE: MC 150

- As with all acid cleaning, be sure to remove zinc plates and rods or other sacrificial anodes before cleaning.
- The acid cleaning process may generate flammable/hazardous gas, including hydrogen. Do not perform hot work when acid is in circulation.
- Do not use **DESCALER PLUS** for removing deposits on equipment made of stainless steel.

For boiler cleaning:

- Do not acid clean a boiler with **DESCALER PLUS** when deposits contain significant amounts of copper or a high percentage of silica.
- Never fire a boiler containing an acid solution.
- Vent to the outside.

PRODUCT PROPERTIES

DESCALER PLUS is incompatible with aluminum, zinc, tin and their alloys, stainless steel, titanium and galvanized surfaces. May swell synthetic rubber. Before full scale application, it is recommended to test all cleaning chemicals on a small area of the object to be cleaned. General Instructions: Avoid spillage, splashing and mishandling. Precautionary measures for body protection are strongly recommended before and during use.

Appearance:	Liquid	pH (undiluted):	Acidic
Type:	Water based	Flash Point:	None