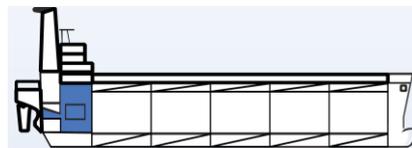


### MAINTENANCE



## DESCALER P

### SPECIAL POWDER BLEND FOR SCALE REMOVAL

#### DESCRIPTION

**DESCALER P** is a non-inhibited water-soluble acid powder for removing water scale and rust. It contains a wetting agent for enhancing the action of the powder acid in removing deposits.

#### APPLICATION

**DESCALER P** is suitable for removing scale deposits and rust from diesel engine cooling water systems, boilers, evaporators, condensers, etc.

#### USE AND DOSING

If the equipment to be cleaned is contaminated by oil, grease, sludge or carbonised oil, then it is necessary to preclean with **DEGREASER SUPER** or **POWER-KLEEN**.

Descaling can be accomplished by recirculation, for large components and systems, by in-situ soaking, or by soaking in an immersion bath for small components. The most effective method is by recirculation as it ensures renewal of acid film in contact with the scale.

**DESCALER P** must be dissolved in fresh water before adding to cleaning equipment. Always use in plastic containers and add the **DESCALER P** to water, never the reverse.

#### Recirculation:

After degreasing, circulate a solution of 5-10% of **DESCALER P** in fresh water. The cleaning time depends on the nature and state of deposits. To avoid saturating the solution, do not exceed the concentration of 10%. Ensure circuit is vented at the highest point to release gases produced during descaling operations.

Product solution may be heated to increase the descaling process up to a maximum of 60°C. Regenerate the solution by adding more **DESCALER P**. To avoid the possibility of a saturated solution, perform maximum 2 regenerations. If further treatment is necessary, the circuit should be drained and a fresh charge should be introduced.

Check the progress of the descaling operation by placing scale samples in easily observed positions. When the samples are completely dissolved, circulate for one more hour then drain system thoroughly.

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.

#### Soaking:

Procedure is similar to the recirculation process, i.e. degreasing, descaling (ensuring proper ventilation), rinsing and neutralising. The same solution concentrations should be used. The cleaning process can be accelerated, if agitation is carried out during descaling.

- ✓ Easy to use and easy to dissolve acid powder
- ✓ Fast and effective scale and rust remover
- ✓ Safe and easy handling and storage
- ✓ 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
- ✓ Powder product - safe handling and storage
- ✓ Can be stored for a very long time
- ✓ Composition conforming to MARPOL ANNEX V

#### PROBLEMS SOLVED

- ✓ Scale
- ✓ Rust
- ✓ Shell growth from seawater heat exchangers

#### APPLICATION AREAS

- ✓ Cooling water systems
- ✓ Boilers
- ✓ Evaporators
- ✓ Heat exchangers
- ✓ Condensers

PRODUCT CODE: MC 151

**IMPORTANT INFORMATION AND PRECAUTIONS**

- Always make sure that equipment has sufficient ventilation to prevent the accumulation of gases.
- Do not allow acid solution to remain in equipment for more than 24 hours.
- 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.

For boiler cleaning:

- Do not acid clean a boiler with **DESCALER P** 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.

For evaporator/heat exchanger cleaning:

- Do not add sodium chloride (ordinary salt) to the acid solution for removing iron oxide deposits if the equipment is made of stainless steel.

**PRODUCT PROPERTIES**

**DESCALER P** is incompatible with aluminum, zinc, tin and their alloys and galvanized surfaces. 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:  | Odourless powder      | pH (10% solution): | Acidic |
| Miscibility: | 20% miscible in water | Flash Point:       | None   |