

Improved safety when pickling

# Avesta RedOne™ Pickling Spray 240

## A low fuming pickling spray!

Many of the processes used for pickling stainless steel lead to the development of hazardous nitric fumes. The European Union has set up a directive BAT, Best Available Techniques, in order to avoid or reduce emissions and environmental impacts.

To fulfil this Avesta Finishing Chemicals has developed a unique low fuming pickling spray which improves safety when pickling by reducing the nitric fume emission by 50%.

It is intended for standard applications such as:

- standard steel grades such as 304 and 316
- cold rolled plates
- pickling at a temperature in the range of 10–30°C.

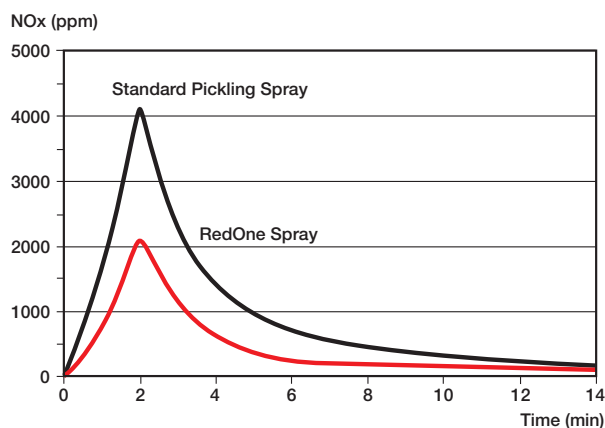
For heavy duty application we suggest the use of our Avesta Classic Pickling Spray 204.

## Avesta RedOne™ Pickling Spray 240

- Restores stainless steel surfaces that have been damaged during fabrication operations such as welding, forming, cutting and blasting. It removes weld oxides, the underlying chromium depleted layer and other defects that may cause local corrosion.
- Improved pickling result, offers a brighter surface with less discolouration than classical products.
- Higher yield, decreased consumption, thanks to the visible red colour and the free flowing consistency, and superior adhesion, which increases the coverage.
- Offers more flexible pickling times. Can be left on overnight, does not dry out and limits risks of over-pickling.



Avesta RedOne™ Pickling Spray 240 – easy to use, easy to see.

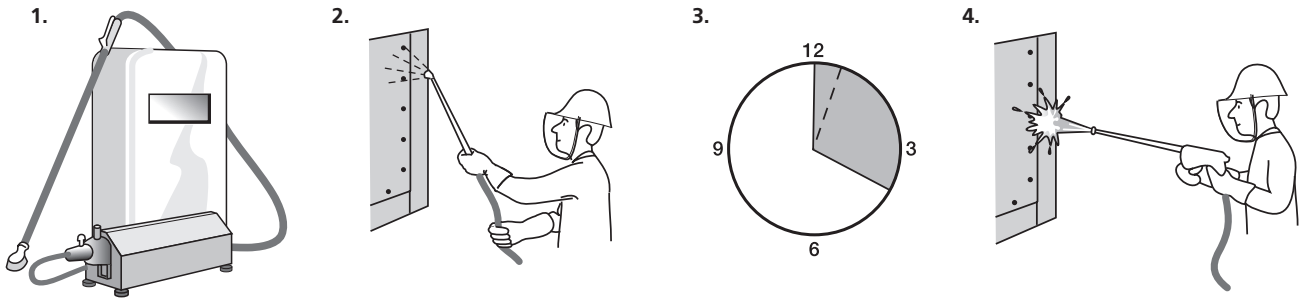


50% fume reduction compared to standard Pickling Spray.



Avesta RedOne™ Pickling Spray 240 – spray pickling with Best Available Technique.

## Instructions for use



1. Pre-clean, remove oil and grease using Avesta Cleaner 401, and then rinse with water, before pickling. Apply both the Cleaner and the Pickling Spray with an acid-resistant pump, e.g. Avesta Membrane Pump SP-25 or Hand Pump 415.
2. Stir the solution before use. Spray evenly over the whole surface.
3. Typical pickling time for Steel grade 304/316 is 180 min at 10°C, 90 min at 20°C and 45 min at 30°C. The pickling was carried out after mechanical pre-treatment of the weld joints and pre-clean-

ing using Avesta Cleaner 401 on cold rolled stainless steels with a 2D finish welded using covered electrodes. These pickling times are experimental results. The pickling time may vary for the same steel grade, depending on the surface finish and the welding method.

4. Remove pickling residues by using a high-pressure water jet, or with a stainless steel brush and then rinse with water. The waste water should be treated before discharge.

## Neutralisation and disposal

The waste water produced when pickling contains acids and should be treated with Avesta Neutralising Agent 502 or with slaked lime to a pH-value of 7-10 before discharge.

The neutralising agent also precipitates heavy metals, and the resultant sludge should be sent for deposition according to local regulations.

## Passivation

To further improve the result and diminish the risk of discoloured surfaces caused by so-called flash clouds or smut, we recommend passivating after pickling using Avesta FinishOne Final Rinse 630 which offers the Best Available Technique when passivating.

## Packaging

Avesta RedOne™ Pickling Spray 240 is supplied in 18 kg, 30 kg, 220 kg and 1200 kg polyethylene drums/containers. These are UN-approved for hazardous goods.

## Other information

For more information, please visit our website [www.avestafinishing.com](http://www.avestafinishing.com) where you can find Material Safety Data Sheets and other useful information.

## Storage

Avesta RedOne™ Pickling Spray 240 should be stored indoors at room temperature. Containers must be kept properly closed, in an upright position and inaccessible to unauthorised persons.

The products are perishable and should not be kept in storage longer than necessary. They have a maximum shelf life of two years when stored at room temperature. Exposure to higher temperatures may reduce shelf life.

## Worker safety

**Avesta First Aid Spray 910** should be readily accessible to all those who work with pickling. It comes in a handy 200 ml spray can and the content has been optimised to decontaminate small acid-splashes of pickling spray.

**Protective clothing.** Users should wear acid resistant overalls, gloves and rubber boots. Goggles or face visor should be used and, if necessary, suitable respiratory protective devices (chloride type filter).

**Avesta**  
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