

ECOINOX

PICKLING LIQUID FOR AISI SERIES 300 STAINLESS STEEL

CHARACTERISTIC

This is a highly effective special concentrated pickling liquid for the elimination of oxides due to welding or heat treatment, containing no hydrofluoric or hydrochloric acids. It is recommended for use on plants in which work is carried out with air injection or agitation of the pickling liquid.

METHOD OF USE

ECOINOX is normally used diluted 1:1 or 1:3 with water.

Plants in which it is used

- Normally operation is by immersion in polythene or PVC tanks.
- It can also be sprayed, in this case special measures must be adopted in the plant. Our company has extensive experience in the construction of these plants and can submit offers for doing so.
- Cold pickling is not a violent process and large amounts of fumes are not produced. According to local law, a suction plant must be provided. The liquid is heated by means of polythene or PVDF heating coils.

Operating temperature and treatment time

- ECOINOX pickling liquid works well at room temperature but can also be used hot, up to 45° C.
- The treatment time depends on the temperature at which it is used and the thickness of the oxidated layer. Normally it varies between 7 and 10 minutes for hot pickling, and 15 to 45 minutes if the liquid is not heated.

Treatment cycle

To ensure that the pickling liquid has a long life and is kept in good condition, the pieces to be treated should be at least roughly degreased, using FS 10 for example, a product which excellency prepares the pieces for pickling. After this treatment, the pieces should be rinsed and the excess water drained away so that the pickling liquid in which the pieces will be immersed is not excessively diluted.

At this point, immerse the pieces in the ECOINOX bath for the set time.

It is a good idea to carry out a preliminary test to establish the immersion time and thus avoid over-pickling.

In the new bath (a pale straw colour), a green coloration will gradually form, due to the complex salts which progressively form in the solution. This green colour will get darker with repeated use of the bath.

At the end of the set immersion period, a good rinse will remove all the oxides which have formed on the piece.

Rinsing with high pressure equipment produces the best results.

Supplying the bath

It is a good rule to periodically check the bath to make sure that the pickling characteristic do not fall below acceptable levels.

The temperature has a considerable influence on the speed of the pickling process. Therefore, the concentration of the bath should be increased when the temperature falls below 20° C in order to have constant results.

Similarly, fresh product must be added when the quantity of oxides dissolved becomes excessive after long periods of work.

Remember that for quantities of around 40-50 g/l of Fe, the bath must be drained, eliminating about one-eighth of its volume and replacing it with an identical amount of fresh bath.

Sludge of insoluble salts will be deposited on the bottom of the bath and, after a certain period of time, this sludge will have to be eliminated and the tank will have to be washed and completely re-filled.

COMMENTS

ECOINOX pickling liquid is highly acid and, therefore, corrosive. Rubber gloves, anti splash goggles and rubber aprons must always be worn when using the liquid. Follow the safety recommendations given on the packaging.

if, in spite of all precautions, the pickling liquid comes into contact with the skin or eyes, wash lavishly under running water and then neutralise with a 5% solution of bicarbonate soda.

Consult a doctor.

DRAIN WATER

The water used to wash the pieces after pickling is acid and contains heavy metal salts.

It must not be drained directly but only after being suitably neutralised and purified.

In the water purification plants which our company can supply we recommend the use of NEUTRIL CS which combines the ability to neutralise plus that of precipitation of the heavy metal salts.

To conclude, we remind users that the sludge produced must be given to a company authorised by the region to dispose of this sludge and must be recorded in a special register.