

# CARECLEAN PICKLING LIQUID

## **Liquid for pickling austenitic stainless steel**

Careclean Pickling Liquid is based on nitric acid, hydrofluoric acid and non-ionic surface-active substances.

The fluid may be used only on austenitic stainless steel as it corrodes other materials. It removes weld slag, annealing scale, grinding dust and iron parts etc.

## **Applications**

Careclean Pickling Liquid is used mainly for pickling installations and tanks. It may be used in the following ways:

1. By circulation
2. Spraying
3. In immersion baths

## **Directions for use**

### **Pretreatment**

Before commencing clean and degrease the surfaces to be pickled, this will give the basis for uniform pickling. Use Careclean ECS Quick Dry to remove felt pen ink marks.

Use Careclean Alkaline for degreasing small metal surfaces. To degrease tanks etc. We advice the use of a 1-5% solution of Careclean Aquawash in warm water. After pickling rinse thoroughly with a jet of water.

### **Circulation method**

This method is used mainly for pipe systems. Fill the system with cold undiluted Careclean Pickling Liquid. Pickling will take 2 to 6 hours depending on the degree of soiling and on the kind of austenitic steel do not pickle longer than necessary. Drain the system and rinse carefully, preferably with demineralised water. After rinsing if required passivation should follow immediately.

For this use Careclean Passivating Liquid.

Note: Before disposing the pickling liquid it should be neutralised with slaked lime.

### **Immersion bath method**

Fill a plastic or plastic lined bath with undiluted Pickling Liquid. Place the articles to be pickled into the bath and leave them to soak for 1 to 6 hours depending on the degree of soiling and the kind of austenitic steel.

Remove the articles from the bath and spray them with a powerful water jet. Demineralised water should preferably be used for this purpose. Passivation should follow immediately after spraying.

### **Passivation**

A protective oxide layer will form on the austenitic stainless steel only if oxidizing conditions are present. For example during longterm rinsing in oxygen rich water or during storage in the open air.

In these circumstances the steel automatically passivates. Because this passive layer takes a long time to develop to the correct thickness we recommend passivating with Careclean Passivating Liquid, particularly if the stainless steel is exposed to corrosive conditions soon after the pickling treatment.

Good results are obtained if the object is sprayed/brushed with Careclean Passivating Liquid immediately after it has been rinsed. Rinse with plenty of water after approx. 5 minutes.

### **Treatment of the effluent**

To neutralise the acid and to make the fluorides and heavy metals insoluble the effluent water and paste should be treated with slaked lime to give a pH balance of 8,5-9. After the soluble substances have settled the uncontaminated water may be drained. Isolate the insoluble contamination and if possible drain by means of filtration, otherwise mix with sawdust and dispose of as chemical waste.

### **Properties**

Strong acidic product containing nitric acid and hydrofluoric acid. Fully miscible with water. Suitable only for use on austenitic stainless steel. Corrosive on all other steels and many other materials.

Specific gravity (at 20%)	: 1,1
Flashpoint c.c.	: none
pH (1% solution)	: approx. 2

### **Extra Marine Care advice**

When working in insufficiently ventilated conditions we advise you to wear a breathing filter for acids.

The details of our products are given completely free of undertaking. Since their application lies outside our control we cannot accept any liability for the results.