

## **STEAMER 700**

### **1. PRESENTATION**

The STEAMER 700 is a new kind of highly technical product able to reduce, in very substantial proportions, hydrochloric gas fumes over the pickling baths. We have added two additional features to limit the number of additives.

This product is anti-vapor and a highly wetting and emulsifier agent.

The wetting and emulsifying features should improve the pickling performance and limit the release of organic materials.

### **2. TECHNICAL SPECIFICATIONS**

STEAMER 700 is introduced into the HCl pickling bath during the assembly of the bath. It will immediately act on :

- 2.1. the surface tension of the bath and the interfacial tensions of the molecules of hydrochloric acid.  
Those features will be highly modified to limit, almost completely, the gassing at the surface. All users can immediately note the very significant reduction of vapor emissions, even during the assembly of a new bath and during the following days, while the HCl concentration is very high. Of course, those reductions of emanations are sensitive whatever the temperature value.
- 2.2. particles of organic materials in suspension in the bath by emulsifying and stabilizing the emulsion in order to delay the time when the organic particles will rise to the surface to create an oil spill.
- 2.3. the wetting power of acid. By considerably increasing the wetting power of the surfaces, the surface active agents will facilitate the chemical exchange, improve the homogeneity of pickling and manage a possible defect of degreasing.

### 3. TECHNICAL FEATURES

- 3.1. **Product presentation** : limpid to yellowish thick and concentrated liquid.
- 3.2. **Product odour** : No specific odour.
- 3.3. **Density of the concentrated product**: around 1,060 at 20°C.
- 3.4. **Product pH value** : around 1,0.
- 3.5. **Physiological pH value** : this additive is used in a strong acid environment mainly HCl.

### 4. USAGE PARAMETERS

Usage parameters, such as temperature, concentration and contact time are directly linked together. It is possible to increase the speed of action of one product, or its efficiency by changing one, two or all three parameters at the same time depending on the technical requirements of the production.

- 4.1. **Concentration** : the concentration for the assembly of the bath is 1% of the volume.
- 4.2. **Operating mode** : the product has to be added by spreading it on the whole surface of the bath, after the introduction of a portion of the water and the technical additives. Then the hydrochloric acid can be added. STEAMER 700 will form a foam bench at the fall of the acid in the bath. This foam bench will block vapors and projections. It is also possible to add this product in use of the bath to stop an important gas release.

**VERY IMPORTANT** : Usually, the main defect of the captation systems of the vapors at the source, ie at the edge of the tank, is to not capture the vapors which waft from the parts during their raising.

STEAMER 700, by its very strong interfacial action, strengthens the liquid/steel cohesion and strongly reduces the surface tension of the acid film that covers the part. Thereby, the gas release during the exit of parts is highly blocked.

### 5. PACKAGING

This compound can be packed in :

- Polyethylene cans of..... 30 liters.
- Plastic drums of..... 200 liters.
- Containers of..... 1000 liters.

### 6. WARNING USAGE

This product is irritant, and as all chemicals products, it should be handled with all precautions required by law.

**Safety spectacles, gloves and personal protective equipment.**

**Be careful** : respiratory protection could be necessary if this product should be used in a hydrochloric pickling bath. In this case, the handling precautions become those to be used for handling a corrosive product : hydrochloric acid. Sprinkler use has to be made outdoors or in a ventilated room.

### 7. SECURITY

**Please see our MSDS.**

All the information of this technical data sheet gives use tendencies, which are the results of our experience. In no case, they cannot engage the responsibility of the company or of one of its members.  
Every special case has to be reviewed by our specialists. Please contact us.

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