

## BONDERITE M-AC 9112

Known as Fixodine C 9112

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### PRODUCT DESCRIPTION

BONDERITE M-AC 9112 provides the following product characteristics:

<b>Technology</b>	Metal Pretreatment
<b>Product Type</b>	Phosphating products for metals
<b>Application</b>	Immersion and Spray
Process components:	BONDERITE M-AC 9112 BONDERITE M-AD 565 (BONDERITE M-AD 65)

BONDERITE M-AC 9112 is a powdered activating product added to the rinsing bath prior to a dip or spray phosphate treatment.

#### Application Areas:

BONDERITE M-AC 9112 is effective in producing uniform and fine crystalline phosphate coatings on iron, steel, aluminium and galvanized surfaces. The product is especially suitable for the use in DI-water.

### TECHNICAL DATA

Bulk Density, g/L 1.1

### DIRECTIONS FOR USE

#### Preliminary Statement:

Prior to use it is necessary to read the **Material Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

#### Bath make-up, for 1,000 L:

While stirring or with the circulation pump running, the following amount is added to the bath tank filled with water:

BONDERITE M-AC 9112  
Spray application, kg 0.1 to 1  
Dip application, kg 1 to 3

BONDERITE M-AC 9112 should be predissolved in DI-water.

### Operating Data:

pH-value 7.5 to 10.5  
Conductivity,  $\mu\text{S/cm}$  (in DI water) 100 to 3,000  
Total alkalinity, (in DI water) 0.5 to 15  
Temperature, °C max. 20 to 40  
Duration of treatment, s 15 to 120

### Bath Monitoring:

BONDERITE M-AC 9112 solution is controlled by determination of pH and conductivity or by determination of pH and total alkalinity.

#### Specified range:

pH-value 7.5 to 10.5  
Conductivity:  
Spray application,  $\mu\text{S/cm}$  (in DI-water) 100 to 1,000  
Dip application,  $\mu\text{S/cm}$  (in DI-water) 1,000 to 3,000  
Total alkalinity:  
Spray application (in DI-water) 0.5 to 5  
Dip application (in DI-water) 5 to 15

When the BONDERITE M-AC 9112 bath is no longer effective it should be discarded and a new bath should be made up.

#### Titration of total alkalinity:

- Pipette 100 mL bath solution to an Erlenmeyer-flask.
- Add 4 to 5 drops of indicator bromocresol green 0.1 % solution .
- Titrate the solution against 0.1 N sulfuric acid. The point will be shown by a colour change from blue to yellow.
- The consumption of 0.1 N sulfuric acid in mL is equal to points of total alkalinity.

#### Remark:

The conductivity and the total alkalinity may be influenced by the water quality and the drag in of rinse water after degreasing.

### Replenishment:

To increase the conductivity 100 $\mu\text{S/cm}$ , add per 1,000 L bath:

BONDERITE M-AC 9112 0.1 kg



To increase the total alkalinity 1point, add per 1,000 L bath:

BONDERITE M-AC 9112                    0.2 kg

**Remark:**

To keep a stable concentration and an excellent performance, the replenishment of the bath with BONDERITE M-AC 9112 should be done corresponding to the throughput (= treated surface and carrier surface) and the eventual overflow according to the make-up concentration of the bath.

The drag out according to the throughput can be calculated as follows:

(drag out: 100mL/m<sup>2</sup>):

**Example:**

1,000 m<sup>2</sup> x 0.1 L/m<sup>2</sup> (drag out) x  
2g/L (make-up concentration) = 200 g

For throughput of 1,000 m<sup>2</sup> add 200 g BONDERITE M-AC 9112. Further additions are necessary for an eventual overflow and/or a partial make-up.

If the pH of the activation bath is too low after addition of required amount of BONDERITE M-AC 9112, add BONDERITE M-AD 565 (BONDERITE M-AD 65).

**Classification:**

Please refer to the corresponding **Safety Data Sheets** for details on:

**Hazards identification**

**Transport information**

**Regulatory information**

**Storage:**

Recommended Storage Temperature, °C	-14.9 to 40
Shelf life, months (in unopened original packaging)	36

**ADDITIONAL INFORMATION**

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Reference 0.1