

## BONDERITE M-AD MN-1

November 2017

### PRODUCT DESCRIPTION

BONDERITE M-AD MN-1 provides the following product characteristics:

|                     |                        |
|---------------------|------------------------|
| <b>Technology</b>   | Metal Pre-Treatment    |
| <b>Product Type</b> | Additive               |
| <b>Application</b>  | Zinc phosphating baths |

Additional product for baths to correct the manganese content.

### TECHNICAL DATA

|             |  |
|-------------|--|
| Composition | inorganic salts, inorganic acid, water |
| Appearance: | light pink, liquid                     |
| Density:    | ~ 1.4 g/cm <sup>3</sup>                |
| pH:         | acidic ( <2.5 )                        |

### 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.

#### Application:

BONDERITE M-AD MN-1 is used to increase the manganese content in zinc phosphate baths.

To increase the manganese content 0.1 g/L add to the 1,000 L bath:

BONDERITE M-AD MN-1                      1.6 kg = 1.2 L

With this addition the "Free Acid" increases 0.15 points and the "Total Acid" 0.8 points.

With this increased "Total Acid" it has to be worked continuously and should not be lowered by reducing dosing of BONDERITE Replenisher, otherwise the ingredients of the bath reduce.

#### Caution:

The product is corrosive; it contains approx. 9 % phosphoric acid!

#### Waste Water Treatment:

Waste water neutralization, if needed. The waste water treatment must meet the requirements of the local water authorities.

#### Classification:

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

**Hazards identification**  
**Transport information**  
**Regulatory information**

#### Storage:

|  |            |
|--|------------|
| Recommended Storage Temperature                        | -5 to 40°C |
| Shelf-life, months<br>(in unopened original packaging) | 36         |

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