

## BONDERITE S-AD 50

Known as Rodine 50  
November 2016

### PRODUCT DESCRIPTION

BONDERITE S-AD 50 provides the following product characteristics:

|                       |                          |
|-----------------------|--------------------------|
| <b>Technology</b>     | Industrial Cleaner       |
| Product Type          | Inhibitor for acids      |
| <b>Application</b>    | Mineral acids            |
| Operating Temperature | up to 85 °C<br>Immersion |
| Concentration         | 1 to 6 g/L               |

BONDERITE S-AD 50 is a nonfoaming, liquid inhibitor for hydrochloric acid. It has a strong inhibiting effect and prolongs the pickling time only insignificantly.

### Application Areas

BONDERITE S-AD 50 inhibits the attack of hydrochloric acid on ferrous materials and is especially used prior to electroplating or phosphating. The inhibitor is also suited for aluminum in cold pickling solutions of hydrochloric acid.

### TECHNICAL DATA

|                            |                         |
|----------------------------|-------------------------|
| Appearance                 | brownish liquid         |
| Density at 20°C, DIN 51757 | ~1.06 g/cm <sup>3</sup> |
| pH-value (20% solution)    | ~2.3                    |

### 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:

|                                      | % by volume of<br>conc.<br>hydrochloric acid |
|--------------------------------------|--|
| For conventional pickling operations | 0.5  |
| For preplating pickling bathes       | 0.125 to 0.25                                |
| For industrial cleaning operations   | 1 to 2                                       |

#### Operating data:

BONDERITE S-AD 50 may be added either to concentrated or dilute hydrochloric acid. It is effective up to 85 °C. In bath pickling operations BONDERITE S-AD 50 should be added each time acid is added. If a foam blanket is desired add a suitable surfactant (e.g. BONDERITE S-AD 6).

#### Bath replenishing:

When the pickling bath is replenished with concentrated pickling acid the proportion of BONDERITE S-AD 50 also needs to be supplemented. For each 100 kg of concentrated pickling acid add:

|                   |                              |
|-------------------|------------------------------|
| BONDERITE S-AD 50 | 0.5 to 2.0 kg (0.5 to 2.0 L) |
|-------------------|------------------------------|

#### Classification:

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

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

#### Storage

|                                 |           |
|---------------------------------|-----------|
| Recommended Storage Temperature | 0 to 40°C |
| Shelf-life, months              | 24        |
| Frost-Sensitive                 | yes       |

## ADDITIONAL INFORMATION

### Disclaimer

#### Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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Reference 0.1