BONDERITE

Technical Data Sheet

BONDERITE S-FN T 320

Known as P3-T 320
October 2014

PRODUCT DESCRIPTION

BONDERITE S-FN T 320 provides the following product characteristics:

Technology	Industrial Cleaner
Product Type	Corrosion protection, oil-free
Application	Temporary corrosion protection agent
Concentration on steel	5 to 20 g/L
Concentration on cast iron	15 to 30 g/L
Operating Temperature	20 to 60 °C spray process

BONDERITE S-FN T 320 is particularly suitable for post-treatment of pickled steel surfaces. Undissolved iron salts, still remaining on steel surfaces after pickling with hydrochloric or sulfuric acid and a water rinse, are converted into complex iron salts and can be easily removed with BONDERITE S-FN T 320 solution. Such a treatment gives steel surfaces a uniform and bright surface. BONDERITE S-FN T 320 is also suitable for final passivation of degreased and pickled iron sheets.

Application Areas

Conditioning and passivating of steel surfaces. BONDERITE S-FN T 320 is composed of alkalies and alkanolamine. It is suitable for immersion as well as for spray cleaning.
The pH-value of the solution should be controlled, as best results in complexing iron salts are achieved above pH 13.

Preparation of a fresh solution is recommended if steel surfaces darken at a pH-value above 13 or if the solution contains brown particles of iron hydroxide.

TECHNICAL DATA

Appearance	colourless to slightly yellow liquid
Density at 20°C, DIN 51757	~1.26 g/cm³
pH-value (20% solution)	~13in a solution of10 g/l

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:
Dilute BONDERITE S-FN T 320 in a container filled with water while stirring.

Operating data:
For complexing iron salts a concentration of 20 to 40 g BONDERITE S-FN T 320 /l is needed;

Temperature:	20 to 60 °C
Duration of treatment	1 to 5min

For the passivation a concentration of 2 to 5g/l at a temperature of 65 °C is recommended.

Bath Control:
BONDERITE S-FN T 320 solution is controlled by titration of free alkalinity.

Feed, ml	50 ml
Titrand:	0.5 N hydrochloric or 0.5 N sulfuric acid
End point:	pH-value
Indicator:	Methylorange
Titration factor (TF):	1.7

- with a pipette fill 50 ml bath solution into a clean 300 ml Erlenmeyer-flask
- Add 4 to 5 drops of indicator.
- Titrate the solution with 0.5 N hydrochloric or 0.5 N sulfuric acid.
- The endpoint will be shown by a colour change from orange to red (pH-value: 3.6).
- Multiply the consumption of the acid solution with the titration factor TF, to get the concentration in g/L
- Divide this by 10 to get the value in %.

Additional Directions:
Corrosion protection is increased, if deionized water instead of tap water is used and the work pieces are stored at low relative air humidity and shielded against weather exposure.

Classification:
Please refer to the corresponding **Material Safety Data Sheets** for details on:
Hazardous Information
Transport Regulations
Safety Regulations

Storage

Recommended Storage Temperature	0 to 40°C
Shelf-life, months	36
Frost-Sensitive	yes

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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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