

BONDERITE C-AK 4215 NC-LT

Known as TURCO 4215 NC-LT
August 2023

PRODUCT DESCRIPTION

BONDERITE C-AK 4215 NC-LT provides the following product characteristics:

Technology	Metal Pre-Treatment
Product Type	Alkaline Cleaner
Application	Immersion, Spray and Ultrasonic

BONDERITE C-AK 4215 NC-LT is a white granular mix developed for cleaning ferrous and nonferrous alloys by spray, immersion and ultrasonic methods at low temperatures. BONDERITE C-AK 4215 NC-LT is ideal for cleaning fuel and hydraulic components and for cleaning metals prior to metal bonding. BONDERITE C-AK 4215 NC-LT contains a balanced blend of organic surface-active agents designed to control any tendencies to foam, even under conditions of severe agitation. A characteristic of this designed foam control is that, at elevated temperatures (above about 40°C), one of the surface active agents will become less soluble, separate and float to the top of the cleaning solution. This is a normal operating characteristic of this product. The oily-looking layer that floats on top of the solution at operating temperature is then, one of the active ingredients and should not be skimmed. BONDERITE C-AK 4215 NC-LT is ideal for cleaning fuel and hydraulic components and for cleaning metals prior to metal bonding.

Features

- Noncorrosive to aluminum, steel, copper and plated metals
- Readily soluble in water
- Nonfoaming at recommended concentrations and temperatures
- Free of chromate
- Readily rinses from metals
- Free of harsh caustics

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:

Tanks, headers and associated equipment may be fabricated from mild or stainless steel.

Spray Systems:

Add BONDERITE C-AK 4215 NC-LT to cold water at the ratio of 7 to 15 g/liter of water. Operate tank from 45 to 55°C, for 2 to 4 minutes. Rinse with cold to warm water.

Immersion Systems:

Add BONDERITE C-AK 4215 NC-LT to cold water at the ratio of 45 to 60 g/liter of water. Use air or mechanical agitation. Operate tank from 45 to 55°C for 5 to 10 minutes. Rinse with cold to warm water by spray or overflowing immersion methods.

Ultrasonic Systems:

Add BONDERITE C-AK 4215 NC-LT at the ratio of 45 to 60 g/liter of water. Degas System prior to cleaning. Rinse with cold to warm water.

Bath Control:

BONDERITE C-AK 4215 NC-LT solution is controlled by the titration of total alkalinity.

- Obtain a sample of process solution and allow it to cool to room temperature.
- Pipette a 50 ml sample into a 250 ml beaker.
- Add 5 to 8 drops Bromcresol green.
- Titrate with 1 N sulphuric acid.
- The endpoint will be shown by a colour change from blue-green to yellow (pH-value: 4.0).
- Record the milliliters of 1 N sulfuric acid used.

Calculations:

Milliliters of 1 N sulphuric acid x 0.533 = oz/gallon BONDERITE C-AK 4215 NC-LT

Concentration of BONDERITE C-AK 4215 NC-LT by surfactant titration:

- Obtain a sample of process solution and allow it to cool to room temperature.
- Pipette a 10 ml sample into a 100 ml volumetric flask.
- Add deionized water and mix.
- Pipette a 10 ml aliquot into a 250 ml Erlenmeyer-flask.
- Add 25 ml of deionized water.
- Add 10 drops of Indicator 99 and 5 ml of Auxilliary Test Solution 76.
- Titrate with Titration Solution 45 to a blue endpoint (free of reddish tint).

Calculations:

$((\text{Milliliters of Titration Solution } 45 + 0.167) / 0.314 = \text{gm/L BONDERITE C-AK 4215 NC-LT}$

$\text{gm/L BONDERITE C-AK 4215 NC-LT} / 7.49 = \text{oz/gal BONDERITE C-AK 4215 NC-LT}$

Solution Maintenance:

Maintain the bath concentration within the recommended range by adding fresh material.

Recommended Concentrations:

Spray System: 7.5 to 15 gm/L (1 to 2 oz/gallon)

Immersion System: 45 to 60 gm/L (6 to 8 oz/gallon)

Ultrasonic System: 4 to 15 gm/L (0.5 to 2 oz/gallon)

Disposal:

Dispose of spent solution per local, state and regional regulations. Refer to HENKEL SURFACE TECHNOLOGIES MATERIAL SAFETY DATA SHEET for additional disposal information.

Precautions:

WARNING! Causes eye irritation. May cause skin irritation. BONDERITE C-AK 4215 NC-LT contains borate, phosphate and silicofluoride. Avoid contact with eyes, skin and clothing. Do not take internally. Use with adequate (equivalent to outdoor) ventilation. Protective clothing, such as a chemical face shield or goggles, gloves, boots and apron made from alkali resistant materials should be worn when handling and using this product. A NIOSH approved respirator equipped with a mechanical filter should be worn for mist conditions.

Store in closed containers away from direct sunlight or excessive heat.

Before using this product refer to container label and HENKEL SURFACE TECHNOLOGIES MATERIAL SAFETY DATA SHEET for additional precautionary, handling and first aid information

NOTICE:

The above information and recommendations concerning this product are based upon our laboratory tests and field use experience with this or similar products. However, since conditions of actual use are beyond our control, any recommendations or suggestions are made without warranty, express or implied. Manufacturer's and seller's sole obligation shall be to replace that portion of the product shown to be defective. Neither shall be liable for any loss, damage, or injury, direct or consequential, arising out of the use of this product.

Storage:

Temperature, °C -10 to 50

Classification:

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

Hazards identification
Transport information
Regulatory information

ADDITIONAL INFORMATION**Disclaimer**

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. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

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