

BONDERITE®

BONDERITE C-AK 4181 AERO

Known as TURCO 4181
September 2013

PRODUCT DESCRIPTION

BONDERITE C-AK 4181 AERO provides the following product characteristics:

Technology	Metal Pre-Treatment
Product Type	Alkaline Cleaner
Application	Immersion

BONDERITE C-AK 4181 AERO free flowing granular mix formulated to remove paint, shop soils, rust and light scale from jet engine parts by immersion methods. BONDERITE C-AK 4181 AERO highly alkaline and should not be used on tin, aluminum, zinc or any alloy containing these metals as the major constituents. BONDERITE C-AK 4181 AERO will not attack ferrous alloys, magnesium alloys, stainless steels, brass, bronze or Monel alloys when used as directed. BONDERITE C-AK 4181 AERO can be used on titanium alloys at up to 65 g/l of water at temperatures up to 77° C.

Application Areas

BONDERITE C-AK 4181 AERO is used for metal pretreatment processes.

BONDERITE C-AK 4181 AERO offers these features:

1. Nonflammable in powdered or solution form.
2. Readily soluble in cold water at recommended concentrations.
3. Easily rinses from parts with high pressure water or by immersion methods.
4. Removes Sermetal W.
5. Solution is controlled by simple titration.

TECHNICAL DATA

Appearance white powder

DIRECTION OF 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.

Use instructions

Tanks: Tanks and associated equipment must be fabricated from stainless steel.

Precleaning: Heavily soiled parts should be precleaned to remove excessive oils and shop soils to reduce excessive contamination of the BONDERITE C-AK 4181 AERO bath.

Mixing: Fill tank to 3/4 of the operating level with lukewarm, clean water . Add BONDERITE C-AK 4181 AERO , at the ratio of 200 to 340 g/l of the final volume of water, slowly to the top of the tank while mixing and mix thoroughly until powder is dissolved. Never "dump" large quantities of powder into water, since excessive heat may generate local pockets of steam which may lead to a steam eruption. When all powder is in solution, add remainder of cold water. Operate tank from 88° C to 93° C with an immersion time of 15 to 30 minutes.

Note: When processing titanium alloys, use no more than 65 g/l of BONDERITE C-AK 4181 AERO . Operate tank at a temperature no higher than 77° C for 15 to 30 minutes. Higher concentrations and higher temperature may attack titanium alloys.

Rinsing: Rinse parts with high pressure spray rinse or by means of an overflowing, agitated immersion method. An immersion rinse followed by hand spray with air and water rinse is also acceptable.

Solution Level: Solution level should be maintained by the periodic addition of clean, cold tap water for optimum results.

Sludge Removal: Insoluble particles removed by BONDERITE C-AK 4181 AERO should be removed once every three to six months. The use of sludge basket in the bottom of the tank is recommended.

Control Procedure for BONDERITE C-AK 4181 AERO

1. Obtain a sample from tank and allow cooling to room temperature.
2. Take a 5.0 ml sample of bath.
3. Dilute to 50 ml with distilled water.
4. Titrate to pH 11.4 using 1.0 N H₂SO₄ and note as ml (A)
5. Calculations: In g/l: ml x 12.90 = g/l BONDERITE C-AK 4181 AERO

Storage



Temperature, °C -10 to 50
Shelf-life (in unopened original packaging), 24
months

Classification

Please refer to the corresponding **Material Safety Data**

Sheets for details on:

Hazardous Information
Transport Regulations
Safety Regulations

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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