BONDERITE

Technical Process Bulletin

BONDERITE S-AD 85
ACID INHIBITOR
(KNOWN AS RODINE 85)

Issued 6/11/2013

1. Introduction:

BONDERITE S-AD 85 (known as RODINE 85) is a soluble, low foaming, liquid inhibitor formulated for use in conventional sulfuric acid pickling operations. BONDERITE S-AD 85 (known as RODINE 85) is effective on any type of steel, and can be used at any acid concentration.

BONDERITE S-AD 85 (known as RODINE 85) is an effective inhibitor for phosphoric and acetic acids, as well as sulfamic, citric, oxalic, and sodium bisulfate solutions in pickling and industrial cleaning operations.

2. Materials:

BONDERITE S-AD 85 (known as RODINE 85)
BONDERITE S-AD 6 (known as FOAMRITE 6) (optional)

3. Buildup:

The amount of BONDERITE S-AD 85 (known as RODINE 85) required to provide the maximum degree of protection will vary with the type of metal being pickled or cleaned, the temperature and the specific pickling or industrial cleaning sequence. The recommended amount of BONDERITE S-AD 85 (known as RODINE 85) to be used for pickling is always given in percent by volume of the concentrated acid, regardless of the degree of acid dilution used. The following guide shows the correct amount of BONDERITE S-AD 85 (known as RODINE 85) to use for the specific pickling and/or industrial cleaning sequence.

For Pickling of Mild and Low Carbon Steels:
For pickling temperatures below 180° Fahrenheit, use BONDERITE S-AD 85 (known as RODINE 85) at 0.125 to 0.5 percent by volume of the concentrated sulfuric acid.

For pickling temperatures above 180° Fahrenheit, use BONDERITE S-AD 85 (known as RODINE 85) at 0.25 to 0.5 percent by volume of the concentrated sulfuric acid.

For Pickling of Alloy and More Reactive Steels:
The usual pickling temperature for alloy and more reactive steels is below
180° Fahrenheit. It is recommended that BONDERITE S-AD 85 (known as RODINE 85) be used in amounts ranging from 0.3 to 0.5 percent of volume of the concentrated sulfuric acid.

For Industrial Cleaning Operations:
BONDERITE S-AD 85 (known as RODINE 85) should be used at a concentration ranging from 0.05 to 0.30 percent by volume of the diluted acid regardless of the degree of acid dilution used. In addition, it is recommended that BONDERITE S-AD 85 (known as RODINE 85) inhibitor be used at a concentration not less that 0.5% by volume of the concentrated liquid acid or not less that 0.5% by weight of the concentrated solid acid, regardless of the temperature of the industrial cleaning operation.

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4. Operation:

Because of its great solubility, BONDERITE S-AD 85 (known as RODINE 85) may be added to tap water, dilute acid or concentrated acid at room temperature. It is effective at all temperatures up to 220° Fahrenheit. NOTE: Caution must be used when adding BONDERITE S-AD 85 (known as RODINE 85) to concentrated acids or the diluted acids at elevated temperatures, as fuming and/or foaming may occur.

In continuous strip lines, where water and acid are added continuously, BONDERITE S-AD 85 (known as RODINE 85) should be added continuously.

In batch pickling operations, BONDERITE S-AD 85 (known as RODINE 85) should be added each time acid is added. If desired, the BONDERITE S-AD 85 (known as RODINE 85) addition may be omitted at the time of the last acid addition prior to discarding the used bath.

BONDERITE S-AD 6 (known as FOAMRITE 6) foam blanket chemical (liquid) may be added to the pickling bath containing BONDERITE S-AD 85 (known as RODINE 85), if increased foam is desired.

5. Storage Requirements:

BONDERITE S-AD 85 (known as RODINE 85) will freeze at 25° Fahrenheit. Freezing is detrimental to the product. It is recommended that BONDERITE S-AD 85 (known as RODINE 85) be stored indoors where the temperature will never fall below 32° Fahrenheit.

6. Waste Disposal Information:

Applicable regulations concerning disposal and discharge of chemicals should be consulted and followed.

Disposal information for BONDERITE S-AD 85 (known as RODINE 85) and BONDERITE S-AD 6 (known as FOAMRITE 6) is given on the Material Safety Data Sheet for each product.

The pickling and industrial cleaning bath is acidic and contains organic RODINE inhibitor components.

The pickling and industrial cleaning bath and sludge can contain ingredients other than those in the chemical as supplied and analysis of the solution and/or sludge is required before waste treatment and disposal.

7. Precautionary Information:

Before handling the chemical products used in the process, the first aid and handling recommendations on the Material Safety Data Sheet for each product should be read, understood and followed.

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