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Product Title: Ridoline 298

Product View: Ridoline 298

Description:

Status:

complete

Technical Process Bulletin

Technical Process Bulletin No. 236810

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Ridoline 298

1. Introduction:

RIDOLINE® 298 is a liquid, non-silicated, immersion cleaner for aluminum and aluminum alloys. It is formulated for use in anodizing and conversion coating lines. It is free rinsing and will remove a variety of soils including oils, greases, inks, and wax based markings.

2. Operating Summary:

<u>Chemical:</u>	<u>Bath Preparation per 100 Gallons:</u>
RIDOLINE 298	4 to 10 gallons
<u>Operation and Control:</u>	
Concentration:	3.5 to 8.9 mls
Time:	3 to 15 minutes
Temperature:	130 to 180°F, maximum (54 to 82°C)

3. The Process:

- A. Cleaning with RIDOLINE 298
- B. Water rinsing
- C. Etch or bright dip (optional)
- D. Water rinsing (optional)
- E. Deoxidizing /desmutting with suitable DEOXALUME material (optional)
- F. Water rinsing
- G. Required anodizing or conversion coating.

4. Materials:

RIDOLINE 298

Testing reagents and apparatus

5. Equipment:

The process and related equipment, pumps, and piping for use with this solution should be constructed of mild steel. The heat exchanger plates should be mild steel. All process circulating pump seals, valve seats, and other elastomers which come in contact with the working process solution should be Buna-N, Teflon or Viton. EPDM elastomers should be avoided.

Automatic process control equipment, which promotes consistent quality and controlled costs, is available. Auxiliary equipment, which is engineered and specified for this process, include air operated chemical transfer pumps, chemical metering pumps, reliable level controls, solenoid valve assemblies and bulk storage tanks. All chemical pump seals, valve seats and other elastomers which come in contact with the concentrated solution can be Buna-N, Teflon, Viton, or Hypalon.

Our sales representative should be consulted for information on Henkel Surface Technologies automatic process control equipment for this process or other matters related to this process. In addition, the "Henkel Surface Technologies Equipment Design Manual" may be consulted.

6. Cleaning with the RIDOLINE 298 cleaner solution:

Buildup:

Fill the tank about three-fourths full with room temperature water. For every 100 gallons of final solution volume add 4 to 10 gallons of RIDOLINE 298 chemical, (the specific amount to be added depends on the desired bath strength). Circulate until thoroughly mixed. Finally, add sufficient water to bring solution up to the working level. Heat to the desired operating temperature.

Operation:

Time: 3 to 15 minutes
Temperature: 130 to 180°F

It is recommended that the bath be continuously agitated by mechanical means such as a Lightin' Mixer or similar device while processing work. **Air agitation is to be avoided.**

7. Testing and Control:

RIDOLINE 298 Cleaner Bath Alkalinity Titration:

Pipet a 25 ml sample into a 125 ml Erlenmeyer Flask. Add about 25 ml deionized water and mix. Add 3 to 4 drops of Indicator 20. Titrate the sample until a bright yellow color is obtained. Record the number of mls of Titrating Solution 61 as the cleaner bath concentration titration.

Alternately, a pH electrode can be used in place of Indicator 20 for endpoint detection. Add titrant to pH 7.3. Record the mls.

Concentration range: 3.5 to 8.9 mls

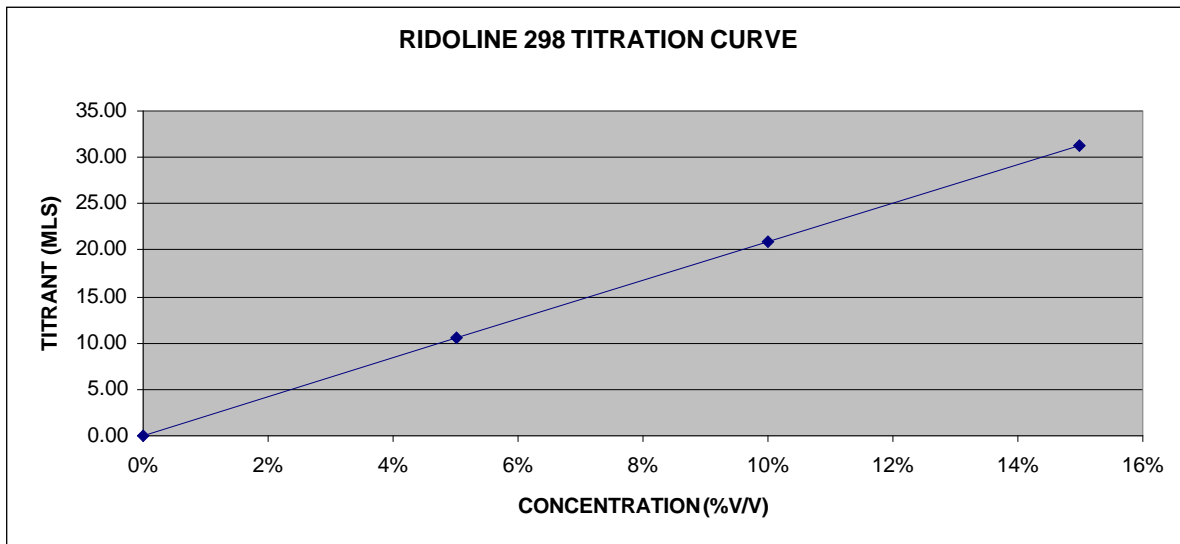
To increase the concentration by 0.1 point, add 0.43 liters (14.5 fl oz) RIDOLINE 298 per 100 gallons.

Alternately, concentration can be determined by surfactant titration.

Ridoline 298 Cleaner Bath Surfactant Titration:

1. Pipette a 1 ml sample of the bath into a clean Erlenmeyer Flask or a beaker.
2. Add about 25 mls of DI water.
3. Add 10 drops of Indicator 99 and swirl to mix. The solution may turn blue.
4. Add 5 ml of Auxiliary Test Solution 76 and swirl to mix. The solution will turn pink.
5. Slowly begin adding Titrating Solution 45, while swirling until 1 or 2 drops changes the mixture from Pink to a Blue (not Purple) end-point.
6. Read the concentration of the surfactant in the bath from the following chart, or use the following formula to calculate the concentration.

% by volume Ridoline 298 = TS 45 points x 0.476



8. After Treatment:

After cleaning with RIDOLINE 298, the work is thoroughly rinsed in cold water. The rinse should be continuously overflowed and the overflow should be regulated with the rate of production so that the main body of the rinse never becomes excessively contaminated.

9. Storage Requirements:

RIDOLINE 298 is a liquid product which may freeze after extended storage at low temperatures. It is recommended that the product be stored above 32°F. If the product does become frozen it should be moved to a warm place and allowed to thaw. After complete thawing, and thorough mixing the product may be used with no loss of effectiveness.

10. Waste Disposal Information:

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

Disposal information for the chemical, in the form as supplied, is given in the Material Data Safety Sheet for this product.

11. Precautionary Information:

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

The processing bath is alkaline and may cause irritation of the skin and eyes. Do not get in eyes, on skin or on clothing. Do not take internally. Wear face shield, rubber gloves, and protective clothing when handling. In case of contact, follow the recommendations on the Material Data Safety Sheets for RIDOLINE 298.

Testing and Reagent

(Order only those items which are not already on hand).

<u>Code</u>	<u>Quantity</u>	<u>Item</u>
592477	1	Buret Assembly, 25-ml Automatic
592488	2*	Flask, Erlenmeyer, 250-ml
595415	250 mL	Indicator 20 (mixed indicator)
592475	1	Indicator Dropping Bottle
592493	2*	Pipet, volumetric, 25-ml
595584	1	Pocket Thermometer (0-220°F)
592441	4.0L	Titration Solution 61 (0.1N Hydrochloric Acid)
592415	250 mL	Indicator 99, 250 ml
592453	1.0L	Aux, Test Solution 76
592451	1.0L	Titration Solution 45

*Includes one more than actually required, to allow for possible breakage.

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