

## Technical Data Sheet

### CHEMEON® Seal 6100

#### Description:

Low foaming liquid mid-temperature nickel seal. Dispersant system aids in smut prevention. Provides superior corrosion resistance and negligible dye leaching. Use at 1 - 4% v/v with a pH of 5.2 to 6.2 and temperature of 160 °F to 190 °F for 1 to 10 minutes.

#### Operating Conditions:

Method of Application:	Immersion
Concentration:	1.0 – 4.0 % by volume
Immersion time:	1 – 10 minutes
Temperature:	160 – 190 °F (70 – 90 °C)
pH:	5.7 ± 0.5
Water:	Use low hardness water or deionized water.
Tank:	Stainless steel or other acid resistant material, which is stable to 190°F.

#### Recommendations for make-up and maintenance:

1. Seal tank should be completely cleaned down to the bare metal
2. Adjust the pH of the water to between 5.0 and 5.5 with acetic acid or ammonium hydroxide before adding CHEMEON® Seal 6100.
3. Separate tanks for clear and dye work will give longer tank life for the clear seal tank.
4. Warm water rinse after sealing with a pH below 6.0.
5. Check CHEMEON® Seal 6100 concentrations regularly and make necessary additions.
6. Maintain the pH at 5.5 - 5.8 with additions of ammonia or acetic acid.
7. Use of CHEMEON® Chemical 6102 to adjust the pH greatly enhances the stability of the pH.
8. Filtering will greatly lengthen the life of the bath. To filter, the pH must be below 5.0. Keeping the pH below 5.0 during filtering is necessary to keep the concentration of the seal at the same level it was before filtration.

#### Recommended anodizing practices:

1. The anodize tank should be kept below 75 °F and good air agitation should be used.
2. Rinse parts thoroughly after anodizing. Use good quality water and overflow adequate rate to maintain low ion concentrations. Two rinses are recommended after the anodizing tank.

#### Solution Control:

1. Pipet 50 mL of seal solution that has cooled to room temperature into a 250 mL beaker.



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2. Add ~100 mL of DI water.
3. Add 10 mL of concentrated ammonium hydroxide and 5 mL of triethanolamine. MIX
4. Add 1-2 murexide tablets.
5. While mixing, titrate with 0.1 M EDTA until a purple violet color is obtained and lasts for 30 seconds.
6. Record the mL of 0.1 M EDTA necessary to reach the endpoint.
7. Calculation:  
$$\text{CHEMEON}^{\circledR} \text{ Seal 6100 (\% by volume)} = (\text{mL of 0.1 M EDTA}) \times 0.3$$

### Physical and Safety Data:

CHEMEON<sup>®</sup> Seal 6100 is a dark green clear liquid.

CHEMEON<sup>®</sup> Seal 6100 is not hazardous.

Do not take internally.

### Packaging:

55 gallon non-returnable plastic drum

5 gallon non-returnable plastic pail

### Storage:

Store CHEMEON<sup>®</sup> Seal 6100 at ambient temperature in a dry place.

### Waste Disposal:

Dispose of according to Federal, State, and local waste treatment regulations. CHEMEON<sup>®</sup> Seal 6100 contains nickel, which is regulated in some areas.

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