



Technical Data Sheet • CHEMEON® Deox 3300(A)

Description:

A non iron, granular oxidizer that is added to sulfuric acid and/or nitric acid to produce an effective deoxidizer for all wrought alloys and some castings. Used at 2 - 6 oz/gal with 6 - 10% v/v sulfuric acid, 3-5% sulfuric acid plus 3-5% nitric acid, or 20-50% nitric acid at room temperature for 1 to 10 minutes. Using a combination of sulfuric and nitric acid helps desmut the 2XXX and 7XXX series alloys.

Operating Conditions:

Method of Application:	Immersion
Concentration:	2 - 8 oz/gal (15 - 60 g/L) of Deox 3300 with 6-10% by volume sulfuric acid or 20 - 50% by volume nitric acid or 3-5% v/v sulfuric acid plus 3-5% v/v nitric acid
Temperature:	room temperature
Time:	1 - 10 minutes.
Tank construction	304 or 316 stainless steel, polyethylene, or rubber lined tanks

Solution Control:

1. Pipet 10 mL of the bath into a 250 mL beaker.
2. Add ~100 mL of water, 20 mL of 50% sulfuric acid, and 4 grams of potassium iodide.
3. Mix for 15 minutes.
4. Titrate with 0.1 N Sodium Thiosulfate to a straw color.
5. Add 3 mL of Starch Indicator and continue titrating to a colorless endpoint that persists for 30 seconds.
6. Record the mL of 0.1 N Sodium Thiosulfate necessary to reach the endpoint.
7. Calculation:

$$\text{Deox 3300 (g/L)} = (\text{mL of 0.1 N Sodium Thiosulfate}) \times 1.15$$

$$\text{Deox 3300 (oz/gal)} = (\text{mL of 0.1 N Sodium Thiosulfate}) \times 0.15$$

Sulfuric Acid Concentration:

1. Pipet a 5 mL sample of desmutting bath into a 250 mL beaker.
2. Add ~100 ml of distilled water.
3. Add 4 to 5 drops of phenolphthalein indicator.
4. Titrate with 1.0 N NaOH until pink color appears and lasts for at least 30 seconds
5. Record the mL of 1.0N NaOH necessary to reach the endpoint.
6. Calculation:

$$\text{Sulfuric Acid (\% by volume)} = (\text{ml of 1.0 N NaOH}) \times 0.56$$

Nitric Acid Concentration:



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7. Pipet a 5 mL sample of desmutting bath into a 250 mL beaker.
 8. Add ~100 ml of distilled water.
 9. Add 4 to 5 drops of phenolphthalein indicator.
 10. Titrate with 1.0 N NaOH until pink color appears and lasts for at least 30 seconds
 11. Record the mL of 1.0N NaOH necessary to reach the endpoint.
 12. Calculation: Nitric Acid (% by volume) = (ml of 1.0 N NaOH) x 1.27
- Sulfuric/Nitric Acid Concentration:
13. Pipet a 5 mL sample of desmutting bath into a 250 mL beaker.
 14. Add ~100 ml of distilled water.
 15. Add 4 to 5 drops of phenolphthalein indicator.
 16. Titrate with 1.0 N NaOH until pink color appears and lasts for at least 30 seconds
 17. Record the mL of 1.0N NaOH necessary to reach the endpoint.
 18. Calculation:
Total Acid (% by volume) = (ml of 1.0 N NaOH) x 0.74

Physical and Safety Data:

Deox 3300 is an oxidizer which requires the use of rubber gloves, face shields and protective clothing. In case of body contact, flush with water. If material gets in the eyes flush with water and see a physician. Do not take internally.

Packaging:

36 lb Pail
400 lb Drum

Storage:

Deox 3300 should be stored in sealed containers located in a cool, dry area away from alkaline products.

Waste Disposal:

The desmut solution containing Deox 3300 may require neutralization to a specified pH range depending on Federal, State, and local waste treatment regulations. This product contains fluoride, which is regulated in some areas.

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