

## Super Bee™ 300LFG

**Super Bee™ 300LFG** is a low-foaming liquid aqueous degreaser approved for immersion, spray wash, spray rinse, steam injection, ultrasonic, and pre/post NDT cleaning applications. It is safe on all common aircraft and turbine engine alloys when used as directed. Contains no nonyl-phenol ethoxylates (NPE).

### **Conforms To**

- Airbus
- AMS
- ARP
- ASTM
- Boeing
- Bombardier
- EPA
- General Electric
- Goodrich
- International Aero Engines
- Israel Aerospace Industries
- Pratt & Whitney
- Rolls Royce
- Snecma

Full Listing on Page 2

### **Benefits**

- Excellent grease and oil remover.
- Low foaming when used in agitated tanks or spray washers.
- Effectively neutralizes fuselage surface after paint stripping
- Free rinsing.
- Safe on steel, aluminum, titanium, magnesium and copper alloys.
- Safe on most paints and plastics.

### **Properties**

- A clear to slightly hazy liquid
- Mild solvent odor

### **Notes Prior to Handling**

Before using your Cee-Bee<sup>®</sup> products, all safety and operating instructions should be read and understood. If you have any questions, please contact your Cee-Bee<sup>®</sup> representative before proceeding.

## Conforms To (Continued)

- Airbus
  - CML 11-033
  - CML 11-001
  - Application Code: 08ABC1
  - Product Code: 860100
- AMS
  - 1526
  - 1537B
- ARP
  - 1755B
- ASTM
  - ASTM-F-945
- Boeing
  - BAC 5749, 5763
  - DPM 6373-7
  - D6-17487 Rev. N
- Bombardier
  - BAPS 180-40
- EPA
  - EPA/60/4-90/027 (SEPTEMBER 1991)
- General Electric
  - CO4-221
  - TN 1873
- Goodrich
  - MP10-007
- International Aero Engines
  - Comat 01-564
- Pratt & Whitney
  - PWA 36604 Rev. C
  - SPMC 173
    - SPOP 1, 209
- Rolls Royce
  - CSS 204 (Type A)
  - OMAT 1/24R
  - MLC 104
- Snecma
  - Ltr. FLISP 2578/07 ED02

## Safety, Handling, and Precautions

- Skin or eye contact can cause irritation. Chemical goggles or face shield and chemical-resistant gloves are recommended.
- In case of accidental contact, flush area thoroughly with water. If irritation persists, seek medical attention.
- Do not take internally.

## Use Procedure

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### Tank Recommendation

- Stainless Steel (300 Series) is recommended for use with Super Bee™ 300LFG.

### Immersion Tank Cleaning

1. Mix Super Bee™ 300LFG in water at 10% - 25% by volume, depending on degree of contamination.
2. Immerse parts in bath at 120 - 160°F (50 - 70°C) for 5 to 30 minutes. Best results are obtained if the solution is agitated.
3. When cleaning is complete, remove parts from bath and allow excess solution to drain back into the tank.
4. Spray rinse parts over tank and immerse in an air-agitated, overflowing water rinse tank.

### Spray Wash Cleaning

1. Charge tank with a 5% to 20% by volume in-water solution of Super Bee™ 300LFG (depending on degree of contamination) and heat to 120 - 160°F (50 - 70°C).
2. Spray wash for 5 to 30 minutes as required.
3. If spray washing equipment does not employ a rinse cycle, spray rinse parts with water or immerse in an air-agitated, overflowing water rinse tank.

### Degreasing of Engine Exteriors Prior To Disassembly

1. Mask all openings to the engine interior as prescribed by the engine manufacturer.
2. Spray or foam on Super Bee™ 300LFG and allow cleaner to dwell 10 to 20 minutes.
3. Flush entire engine with warm/hot water or steam.

### Ultrasonic Cleaning

1. Mix Super Bee™ 300LFG in water at 15% to 25% and operate at 120 - 140°F (50 - 60°C), for 5 to 15 minutes.

### NOTE:

- In combined Immersion Soak/Ultrasonic applications the solution strength can be reduced to the range 8% to 20% whilst elevating the temperature from 85 - 160°F (30 - 70°C) for periods of 10 to 20 minutes.

## Use Procedure (Continued)

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### Neutralizing Paint Stripped Surfaces

1. Preferably used on metal surfaces stripped with an acid activated paint remover such as Cee-Bee<sup>®</sup> E-1004J.
2. Remove all loosened paint with brush and/or squeegee.
3. Steam clean stripped surfaces with hot 140 - 175°F (60 - 80°C) water.
4. Neutralize surfaces with a warm 120 - 160°F (50 - 70°C), 3 to 5 % Super Bee<sup>™</sup> 300LFG solution. Start application at the bottom of the work area and work upwards.
5. Rinse surface thoroughly with waters

## Tank Control Parameters

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### Operating Temperature

- Operating the solution below the recommended temperature will reduce cleaning performance.

### Concentration

- Super Bee<sup>™</sup> 300LFG solution concentrations can be determined by;
  - UV Spectrometer
  - Hand Refractometer

## Solution Control – UV Spectrophotometer Method

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### UV Spectrophotometer Method

#### Reagents & Equipment

- Deionized water
- UV Spectrophotometer
- 10 mm Quartz Cuvettes
- 2 ml Class A Volumetric Pipette
- 100 ml Class A Volumetric Flask

#### Analysis Procedure

1. Pipette 2 ml from a foam-free sample of Super Bee™ 300LFG working bath to a 100 ml volumetric flask.
2. Dilute the flask to volume with de-ionized water, stopper, and mix well by gentle inversion (keep foam to a minimum).
3. Measure the absorbance of this dilution using a 10 mm quartz cuvette at 267 nm. Use deionized water as a reference blank.
4. Calculation:  
(Volume %) Super Bee™ 300LFG concentration = (sample absorbance @ 267 nm) X (38.17).

#### pH

To insure optimum performance, maintain bath pH within the range of 10.0 to 12.0 using a reliable pH meter. Super Bee™ 300LF pH Adjuster is available in two versions:

##### Solid pH Adjuster

- Add with agitation 1 ounce of solid pH adjuster for each 100 gallons (75 grams per 1,000 liters) of tank solution to increase pH by 0.1 unit.

##### Liquid pH Adjuster

- Add with agitation 3 liquid ounces pH adjuster for each 100 gallons (240 ml per 1,000 liters) of tank solution to increase pH by 0.1 unit.

If concentration and pH are within their recommended ranges, and performance is not satisfactory, the tank should be dumped and recharged with a fresh solution of Super Bee™ 300LFG.

## Solution Control – Refractometer Method

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The following method of analysis (Refractometer method) cannot be used if pH Adjuster is used to increase bath's pH. The UV method of analysis is the only method to use when pH Adjuster is used.

### Refractometer Reading Method

#### Reagents & Equipment

- Hand Refractometer (0-30 Scale), any hand-held Brix Refractometer (0-30 Scale)

#### **Analysis Procedure by Refractometer Reading**

1. Allow a sample of the Super Bee™ 300LFG bath to cool to room temperature 73 - 80°F (23 - 27°C).
2. Thoroughly mix the sample and immediately apply a few drops to the inclined rectangular window of the refractometer using the plastic rod provided to make the transfer.
3. Immediately close the plastic cover over the window.
4. Hold the instrument up to a strong light and read the refraction value on the scale of 0 to 30 units (water will read -0-).
5. Calculation:

$$(\text{Refractometer Reading}) \times (4.45) = \% (\text{vol.}) \text{ Super Bee}^{\text{™}} \text{ 300LFG}$$

## Contact Us

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### United States

#### McGean

Phone: +1-216-441-4900

Fax: +1-216-441-1377

Email: [Aviation@McGean.com](mailto:Aviation@McGean.com)

### United Kingdom

#### McGean-Rohco (UK) Ltd.

Phone: +44-1902-456563

Fax: +44-1902-457443

Email: [Aviation@McGean-Rohco.co.uk](mailto:Aviation@McGean-Rohco.co.uk)

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### Singapore

#### McGean Singapore

Phone: +65-6863-2296

Fax: +65-6863-2297

Email: [Info@ceebee.com.sg](mailto:Info@ceebee.com.sg)

### China

#### Cee-Bee Aviation Materials (Xiamen) Co. Ltd.

Phone: +86-592-551-3689

Email: [Info@ceebee.com.cn](mailto:Info@ceebee.com.cn)

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