

# SUPER BEE™ 300LF CLEANER

by Cee-Bee®



## data sheet

**SUPER BEE 300LF** is a low-foaming liquid concentrate for use in immersion or spray wash applications, and for degreasing turbine engine exteriors prior to disassembly.

### BENEFITS

- Excellent grease and oil remover.
- Low foaming when used in agitated tanks or spray washers.
- Free rinsing.
- Safe on steel, aluminum, titanium, magnesium and copper alloys.
- Safe on most paints and plastics.
- Non-flammable.

### CONFORMS TO

- AIRBUS INDUSTRIES (A330-ATA32 Wheel Hubs)
- AIRBUS AIPI 09-01-003
- AIRCRAFT BRAKING SYSTEM CORP. (ABSC)
- ALL NIPPON AIRWAYS (ANA)
- AMS 1526B
- AMS 1537A (Cleaner, Alkaline Hot-Tank Type)
- AMS 1537B
- ARP 1755B
- ASTM-G-47, ASTM-F-945-85, ASTM-F-483, ASTM-F-945
- BOEING BAC 5744, BAC 5749, BAC 5763 TYPE II
- BOEING DPM 6373-5
- BOMBARDIER BAPS 180-001
- BUPI UNITED KINGDOM
- CFM56
- DOUGLAS CSD-1 AND CSD-3
- FEDERAL EXPRESS

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**NOTE: To place an order, call or FAX Customer Service at  
800-932-7006 / FAX 216-441-1377  
Super Bee 300LF Cleaner    Product Code # 20095**



**CONFORMS TO (CONTINUED)**

- **GENERAL ELECTRIC (70-21-22 Methods 1 & 2/70-21-24 Exterior Engine Cleaning) CO4-221**
- **GOODRICH**
- **GOODRICH MESSIER**
- **HONEYWELL AIRCRAFT LANDING SYSTEMS**
- **INTERNATIONAL AERO ENGINES COMAT 01-480**
- **LOCKHEED-MARTIN EMAP G32.0200 Specification: LCM 32-2089C, Type 1, Class 2**
- **LOCKHEED-MARTIN EMAP G32.0200 Specification: STM 32-301C, Type I, Class 1A**
- **LOCKHEED-MARTIN EMAP G32.0206 Specification: STM 32-301C, Type 11, Class 1A**
- **MESSIER BUGATTI GOODRICH CMM32-41-83**
- **MESSIER SERVICES**
- **PRATT & WHITNEY PMC 1481, SPMC 181**
- **ROLLS ROYCE OMAT 1/24R, MLC104**
- **SAAB**
- **SAFRAN (PR-1500)**
- **SIKORSKY**
- **SNECMA**
- **UNITED AIRLINES**
- **UNITED LAUNCH ALLIANCE DPM 8994**

**NOTES PRIOR TO HANDLING**

**Before using any McGean product, all safety and operating instructions should be read and understood. If you have any questions, please contact your McGean representative before proceeding.**

**USE PROCEDURES****Immersion Tank Cleaning**

Mix in water at 10% - 25% by volume, depending on degree of contamination.

1. 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.
2. When cleaning is complete, remove parts from bath and allow excess solution to drain back into the tank.
3. Spray rinse parts over tank and immerse in an air-agitated, overflowing water rinse tank.

**Spray Washer Cleaning**

1. Charge tank with a 5% to 20% by volume in-water solution of Super Bee 300LF (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 300LF and allow cleaner to dwell 10 to 20 minutes.
3. Flush entire engine with warm/hot water or steam.

**Ultrasonic Cleaning**

1. Mix in water at 15% to 25% and operate at 120 - 140°F (49 - 60°C), for 5 to 15 minutes.

**SOLUTION CONTROL**

- **Operating Temperature** - Operating the solution below the recommended temperature will reduce cleaning performance.
- **Concentration** - Super Bee 300LF solution concentrations can be determined by UV Spectrophotometer method as below:

**UV SPECTROPHOTOMETER METHOD****Reagents & Equipment**

De-ionized 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 300LF 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 272 nm. Use de-ionized water as a reference blank.
  4. Calculation:  
(Volume %) SB 300LF concentration = (sample absorbance @ 272 nm) X (32.14).
- **pH** - To insure optimum performance, maintain bath pH within the range of 10.0 to 12.0 using a reliable pH meter.

**Liquid pH Adjuster (Product Code # 20101)**

If pH falls below 10.0, add with agitation 3 liquid ounces pH adjuster for each 100 gallons (240 ml per 1000 liters) of tank solution to increase pH by 0.1 unit. Note that this addition is only valid for a pH below about 10.8. Above pH of 10.8, more pH Adjuster will be necessary.

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 300LF.

**SOLUTION CONTROL**

The following methods of analysis (Titration and Refractometer methods) may not work as reliably if used on contaminated baths or where pH Adjuster has been used heavily. Consult your local Cee-Bee representative when in doubt.

**TITRATION METHOD****Scope:**

To determine concentration of Super Bee 300LF baths at the shop level.

**Reagents and Equipment:**

pH Meter	0.1N acid, standard
250 ml Erlenmeyer flask	Deionized or distilled water
50 ml Burette	
50 ml Volumetric pipette	

**By Titration:**

1. Pipette 50 ml of tank solution into a 250 ml Erlenmeyer flask.
2. Add approximately 50 ml DI water.
3. Titrate with 0.1N acid to pH of 9.0 and record ml acid as A.
4. Continue titration to a pH of 4.0 and record total ml acid as T.

**Calculations:**

$$(T - A) \times 1.16 = \% \text{ (vol.) Super Bee 300LF}$$

**REFRACTOMETER READING METHOD****Scope:**

To determine concentration of Super Bee 300LF baths at the shop level.

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

**By Refractometer Reading:**

1. Allow a sample of the Super Bee 300LF bath to cool to room temperature ( $25 \pm 2^\circ\text{C}$ ).
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-).

**Calculations:**

$$\text{Refractometer Reading} \times 4.7 = \% \text{ by volume of Super Bee 300LF}$$

**PROPERTIES**

- A clear to slightly hazy liquid.
- No flash point. Mild solvent odor.

**SAFETY & HANDLING**

- 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.