

# SUPER BEE™ 300LF



## LOW FOAM CONCENTRATED CLEANER DEGREASER

SUPER BEE™ 300LF is a low foaming concentrate cleaner, designed to penetrate and remove oils, stains, and stubborn greases. Approved for aerospace immersion and spray wash degreasing 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 wash applications
- Free rinsing
- Safe on steel, aluminum, titanium, magnesium and copper alloys
- Safe on most paints and plastics
- Non-flammable

### PHYSICAL PROPERTIES

Appearance	Liquid	Solubility	Water soluble	Flammability	Non-flammable
Colour	Colourless	pH	####	Density	1.06 g/ml
Odor	Mild odour	Flash Point	NA		

### AVAILABLE FORMATS



20L

20CB3LFP

205L

20CB3LFD

1000L

20CB3LFT

### APPROBATIONS

• AIRBUS INDUSTRIES (A330-ATA32 Wheel Hubs) • AIRBUS AIP1 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 • 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

## USE PROCEDURES

## IMMERSION TANK APPLICATIONS

To prepare immersion bath, dilute SUPER BEE™ 300LF with water, to 10–25 % by volume. Exact dilution volume will vary by degree of contamination.

1. Immerse parts in heated bath at 50–70 °C (120–160 °F), for 5 to 30 minutes. Optimal results are achieved when solution is agitated.
2. Once cleaning is complete, remove and suspend parts above bath, while allowing dragged out solution to drain back into tank.
3. Spray rinse parts over tank and then immerse in an air-agitated, overflowing water rinse tank.

## SPRAY WASH CLEANING

1. Charge tank with a 5–20 % (by volume) aqueous solution of SUPER BEE™ 300LF and heat to 50–70 °C (120–160 °F). Volume dilution will vary with degree of contamination.
2. Apply spray wash for 5 to 30 minutes, or as required.
3. If spray washing equipment does not apply 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 SUPER BEE™ 300LF onto surface and allow to degrease for 10 to 20 minutes.
3. Flush entire engine with warm/hot water or steam.

## ULTRASONIC CLEANING

1. Dilute SUPER BEE™ 300LF with water, to 15–25 % by volume. Operate at 49–60 °C (120–140 °F), for 5 to 15 minutes.

## SOLUTION CONTROL

**OPERATING TEMPERATURE** Operating the solution below the recommended temperature range will affect cleaning performance and reduce anti-foaming properties.

**CONCENTRATION:** SUPER BEE™ 300LF concentrations can be determined with one of the three following analytical methods

**UV SPECTROMETER METHOD:**

**Reagents and Equipment:** De-ionized water • UV spectrophotometer • 10 mm quartz cuvettes • 2 mL class A volumetric pipette and 100 mL class A volumetric flask.

**Procedure:**

1. From a working bath, pipette 2 mL of a foam-free SUPER BEE™ 300LF solution, into a 100 mL volumetric flask.
2. Dilute the flask to volume with deionized water, and mix well by gently inverting flask, while keeping foam to a minimum.
3. Measure the absorbance of solution using a 10 mm quartz cuvette, at 272 nm. Use deionized water as a reference blank.
4. Calculation: SUPER BEE™ 300LF volume % concentration = sample absorbance at 272 nm x 32.14.

**TITRATION METHOD:**

• Reagents and Methods pH meter • 0.1N acid standard • 250 mL Erlenmeyer flask • deionized (DI) or distilled water • 50 mL burette • 50 mL volumetric pipette.

**Procedure:**

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

Calculation:  $(T-A) \times 1.16 = \text{SUPER BEE™ 300LF concentration as \% volume.}$

**REFRACTOMETER METHOD:**

1. Use a calibrated hand held refractometer equipped with scale range 0–30.
2. Cool a SUPER BEE™ 300LF sample 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 by manufacturer.
3. Immediately close the plastic cover over the window.
4. Hold the instrument up to a strong light and read the refraction value. Readings should be within 0 to 30 units; water should read 0.

**CALCULATION:**

Refractometer reading x 4.7 = SUPER BEE™ 300LF concentration as % volume. pH Monitoring and Measurements: To insure optimum performance, maintain bath's pH within 10.0 to 12.0 range. Routinely monitor pH using a calibrated pH meter.

CEE-BEE® Liquid pH Adjuster (Product Code # 20CBDPH): If bath pH decreases to less than 10.0; add with agitation 240 mL of pH adjuster for each 1000 L of tank solution, to increase pH by 0.1 units. Note that this addition is only effective for pHs below 10.8. For pHs above 10.8, more pH adjuster will be necessary. If tank concentration and pH are within their recommended ranges, and performance is not satisfactory, the tank should be recharged with a fresh solution of SUPER BEE™ 300LF.

If baths are contaminated and/or pH adjuster has been used extensively, titration and refractometer methods may not be reliable. Consult with your local DeaneCo representative for troubleshooting and recommendations.

## LEGISLATION

- WHMIS Regulated

## SAFETY &amp; HANDLING

- Refer to Safety Data Sheet (SDS) for additional information
- Dispose of container and its contents in compliance with all applicable regulations.
- Avoid eye and skin contact; may cause burning and/or irritations. Safety glasses or face shield, and chemical resistant gloves are recommended during use. • In case of accidental contact, flush affected areas thoroughly with water. If irritation persists, seek medical attention. • Do not ingest.

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