

CEE-BEE CLEANER A-7X7

by Cee-Bee®



d a t a s h e e t

CEE-BEE CLEANER A-7X7 is a concentrated liquid emulsion cleaner that effectively removes greases and oils in immersion, ultrasonic and spray-on cleaning applications. Cee-Bee A-7X7 is also approved for turbine engine degreasing prior to teardown.

BENEFITS

- Excellent for removing greases and oils in immersion or spray-on applications
- Effective in ultrasonic cleaning applications
- Effective at ambient temperature for hand-cleaning operations
- Free rinsing
- Safe on steel, aluminum, titanium, magnesium and copper alloys
- Safe on most paints and plastics
- Non-flammable
- Contains no phenolics, cyanides or other heavy metal salts
- Surfactants biodegradable

CONFORMS TO

- **BOEING BAC 5763, TYPE I**
- **CFM56**
- **GENERAL ELECTRIC CO4-165**
- **GOODRICH**
- **HONEYWELL AEROSPACE**
- **INTERNATIONAL AERO ENGINES COMAT NO. 01-339**
- **PRATT & WHITNEY SPMC 104**
- **ROLLS ROYCE OMAT NO. 1/24J**
- **T.O. 2J-1-13**

**NOTE: To place an order, email, call or FAX Customer Service at
orders@mcgean.com
800-932-7006 / FAX 1-216-441-1377
Cee-Bee Cleaner A-7X7 Product Code # 26001**



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NOTES PRIOR TO HANDLING

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

USE PROCEDURES

Hot Tank Cleaning

1. Fill the operating tank to approx. one-half capacity with water. Add the desired amount of Cee-Bee A-7X7 and bring to full tank volume with water. Stainless steel (300 series) is recommended for containing Cee-Bee A-7X7.
2. Operating concentration and temperature may vary with soil difficulty and range between a 10% to 30% (by volume) solution at 120°F to 160°F (49-71°C). For most applications a 10% to 25% (by volume) solution at 140°F (60°C) for 10 to 30 minutes provides satisfactory results. Please see OEM's recommendations for specific concentration and temperature range. Although heat improves cleaning performance, Cee-Bee A-7X7 can be used at ambient temperature.

Spray-On Cleaning and Degreasing Engine Exteriors

1. Mask all openings to the engine interior (the inlet, exhaust, fuel and oil lines left open, bleeders, breather tubes and open electrical connectors).
2. Spray, steam or foam on Cee-Bee A-7X7. Allow to dwell 10 to 20 minutes.
3. Flush with warm or hot water.

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** - Cee-Bee Cleaner A-7X7 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 CEE-BEE CLEANER A-7X7 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 275 nm. Use de-ionized water as a reference blank.
 4. Calculation:
(Volume %) CB A-7X7 concentration = (sample absorbance @ 275 nm) X (13.9).
- **pH** - To insure optimum performance, maintain bath pH within the range of 10.5 to 12.5 using a reliable pH meter.

Cee-Bee A-7X7 pH Adjuster (Product Code # 26043)

If pH falls below 11.5, add with agitation 1 liquid ounce Cee-Bee A-7X7 pH adjuster for each 100 gallons (80 ml per 1000 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 Cee-Bee Cleaner A-7X7.

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 Cee-Bee Cleaner A-7X7 baths at the shop level.

Reagents and Equipment:

pH Meter	0.1N acid, standard sulfuric acid
250 ml Erlenmeyer flask	Deionized or distilled water
50 ml Burette	0.1% Methyl Orange indicator (aq.)
10 ml Class A Volumetric pipette	

By Titration:

1. Pipette 10 ml of tank solution into a 250 ml Erlenmeyer flask.
2. Add approximately 50 ml DI water and 3 -5 drops of 0.1% Methyl Orange indicator.
3. Titrate with 0.1N acid until color changes from yellow to red.

Calculations:

Ml of 0.1 N acid titrated x 2.8 = % (vol.) Cee-Bee Cleaner A-7X7

REFRACTOMETER READING METHOD**Scope:**

To determine concentration of Cee-Bee Cleaner A-7X7 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 Cee-Bee Cleaner A-7X7 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:

Refractometer Reading x 4.45 = % by volume of Cee-Bee Cleaner A-7X7

PROPERTIES

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

PRECAUTIONS

- Can cause irritation. Avoid eye contact and prolonged skin contact. Wear face shield or goggles and rubber gloves.
- In case of accidental contact, flood with water. If eye irritation persists, seek medical attention. Do not take internally.

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