

# CEE-BEE® A-7X7



## ALKALINE EMULSIFIER CLEANER

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

### BENEFITS

- Excellent for removing greases and oils, with immersion or spray-on applications
- Effective for ultrasonic cleaning applications
- Effective at ambient temperatures 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

### PHYSICAL PROPERTIES

Appearance	Liquid	Solubility	Water Soluble	Flammability	Non-flammable
Colour	Yellow	pH	11-12	Density	1.049 g/ml
Odor	Slight odour	Flash Point	ND / NA		

### AVAILABLE FORMATS



20L

20CB7X7P

208L

20CB7X7D

1000L

20CB7X7T

### APPROBATIONS

- 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

### LEGISLATION

- WHMIS Regulated

### SAFETY & 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 irritation. Wear face shield or safety glasses, and chemical resistant gloves while handling. • In case of accidental contact, flush affected areas with water. If eye irritation persists, seek medical attention. Do not ingest.

Information and recommendations regarding this product are presented in good faith. However no guarantees are associated with the data presented in this document, and no such guarantees should be interpreted from the information and expected results presented. We do not assume any liability for damage, loss or injury, direct or indirect, related to the use of this product.

## USE PROCEDURES

### HOT TANK IMMERSION APPLICATION:

1. It is recommended that tank containment materials be made of stainless steels (300 series), and are resistant to alkaline solutions. To prepare bath solution, fill operating tank to 50 % volume capacity, with water. Cautiously add CEE-BEE® A-7X7 to desired volume concentration; then add remainder of water to establish final bath volume concentration.
2. Optimal bath concentrations and temperatures will depend on degree of contamination, and vary between 10–30 % (by volume) and 49–71 °C (120–160 °F). For most applications, bath concentrations of 10–25 %, by volume, operated at 60 °C (140 °F) for 10–30 minutes, achieve satisfactory results. See OEM's recommendations for concentration and temperature ranges. Although heating improves cleaning performance, CEE-BEE® A-7X7 can be used at ambient temperatures.

### SPRAY-ON CLEANING AND DEGREASING OF ENGINE EXTERIORS:

1. Mask all openings to the engine interior: the inlet, exhaust, fuel and oil lines, bleeders, breather tubes and electrical connectors.
2. Spray, steam or foam on CEE-BEE® A-7X7. Allow to dwell for 10 to 20 minutes.
3. Flush with warm or hot water.

### ULTRASONIC CLEANING:

1. Dilute CEE-BEE® A-7X7 with water, to concentration volume of 15–25 %. Operate at 49–60 °C (120–140 °F), for 5 to 15 minutes.

## SOLUTION CONTROL

**OPERATING TEMPERATURE:** Operating the bath's solution below recommended temperature ranges will affect cleaning performances.

**CONCENTRATION:** CEE-BEE® A-7X7 bath concentrations can be determined with one of the following analytical methods:

### UV SPECTROPHOTOMETRY:

**REAGENTS AND EQUIPEMENT:** Deionized water. • UV Spectrophotometer. • 10 mm Quartz cuvettes. • 2 mL class A volumetric pipette, and 100 mL class A volumetric flask.

### ANALYSIS PROCEDURE:

1. From a working bath, pipette 2 mL of a foam-free CEE-BEE® A-7X7 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 275 nm. Use deionized water as a reference blank.
4. Calculation: CEE-BEE® A-7X7 % volume concentration = sample absorbance at 275 nm x 13.9.

**pH MEASUREMENTS:** To insure optimum performance, maintain bath's pH within 10.5 to 12.5 range. Routinely monitor pH using a calibrated pH meter.

If bath pH decreases to less than 11.5; add with agitation 80 mL of pH adjuster for each 1000 L of tank solution, to increase pH by 0.1 units. If tank concentration and pH are within their recommended ranges, and bath performance is not satisfactory, the tank should be recharged with a fresh solution of CEE-BEE® A-7X7.

Note: 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.

### TITRATION ANALYSIS:

**REAGENTS AND EQUIPEMENT:** pH meter 0.1 N sulfuric acid standard. • 250 mL Erlenmeyer flask, Deionized (DI) or distilled water. • 50 mL burette, 0.1 % methyl orange indicator. • 10 mL class A volumetric pipette.

### PROCEDURE:

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 to flask.
  3. Titrate flask's solution with 0.1N acid, until solution colour changes from yellow to red.
- Calculation: Volume of acid used to titrate (mL) x 2.8 = % volume concentration CEE-BEE® A-7X7 in working bath.

### REFRACTOMETER METHODE:

1. Use a calibrated hand held refractometer equipped with scale range 0–30.
2. Cool a CEE-BEE® A-7X7 bath sample to room temperature (25 ± 2 °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 4.45 = CEE-BEE® A-7X7 bath concentration as % volume.