

### PRODUCT DATA AND TYPICAL PROPERTIES

Esseco Aqueous Cleaner M-AERO-NS is a NON SILICATED (NS) heavy duty, environmentally sensible, aqueous cleaner designed specifically for cleaning aluminium, magnesium and titanium alloys to rigorous aircraft industry specifications as well as other ferrous and non ferrous alloys. The unique chemistry of Esseco Aqueous Cleaner M-AERO-NS makes it ideal for use in ultrasonic, immersion, agitated batch washer and spray washer applications. This product exhibits oil splitting properties at elevated temperatures so may be used with skimming or coalescing filtering systems to extend bath life.

: 8.7 (approximately)

: 28 dynes/cm

: <100 cps

: none

: slight odour of surfactants/detergents

Odour pH (10% solution) Flash Point Surface Tension Viscosity

### **PRODUCT SPECIFICATION**

Appearance Specific Gravity (25°C) pH (25°C, neat) Pale straw to amber, clear to slightly hazy liquid. 1.00-1.045 8.8-9.4

## APPROVALS

M-AERO-NS meets the following requirements:

- MIL-PFF-87937C, Cleaning Compound, Aerospace Equipment, Type II, Water Dilutable Cleaning Compound, Type IV, Heavy Duty Water Dilutable Cleaning Compound.
- Rolls Royce CSS 200 Control Procedures for the Purchase & Supply of Consumable Material used during Manufacture
- Rolls Royce CSS 204 Aqueous Cleaners
- GM Tox Number 334054
- Compressed Gas Association certification to ASTM G-121 and ASTM G-122 for use on oxygen service systems

	PERFORMANCE		
	Features	Benefits	
٠	Corrosion inhibited	meets aerospace test requirement	S
•	No silicate	no surface build up (better coating	s adhesion)
٠	Versatile	safe on variety of metals and plast	ics
٠	Unique formulation	superior cleaning results	
•	No ozone depleting potential	environmentally friendly	
•	No VOCs	no VOC permits required	
•	Not hazardous	no special safety or storage condit	ions
•	Lower pH (carbonate free)	does not saponify esters contained (prevents foam caused by soap for	5
•	Low toxicity, no glycol ethers	worker safety	
•	Low foaming	suitable for spray (with care) and in	nmersion washing
•	Low BOD/COD values	easy disposal, simple effluent treat	tment
•	Not flammable	safe in all cleaning equipment	
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# **TECHNICAL DATA SHEET**

#### SUBSTRATE COMPATIBILITY

Esseco Aqueous Cleaner M-AERO-NS is formulated specifically for cleaning aluminium, magnesium and titanium alloys. However, it is also suitable for ferrous, copper and a variety of other alloys and metals. These include:

Carbons Steels (AISI and SAE):	Cast Irons (high carbon steels):
1010, 1020, 1030 carbon steels 4140 low alloy Cr and Mo steels 4340 low alloy Cr, Mo and Ni steels	SAE – G2500 (cast iron) SAE – J434c (ductile iron)

Stainless Steels:

AISI – 304, 304L, 316, 316L Super-austenitic, ferritic, martensitic alloys Duplex stainless steel Cast stainless steel Copper Alloys:

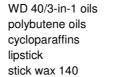
Yellow Brass Admiralty Brass Naval Brass Nickel Aluminium Alloys Copper/Nickel alloys

Nickel Alloys:	<u>Titanium Alloys:</u>	<u>Aluminium Alloys:</u>
Monel	Grade 2	AA 1100
Inconel	Grade 5	AA 2024 high Cu
Incoloy	Grade 7	AA 3003
Hastelloy	Grade 9	AA 4032
	Grade 12	AA 5052
		AA 6061
		AA 7075 high Zn
Magnesium Alloys:	Cast alloys	-

# SOILS AND CONTAMINANTS TO BE REMOVED

The following soils can be removed using Esseco Aqueous Cleaner M-AERO:

sulphur based cutting fluids
automotive oils
lithium grease
mineral oils
vegetable oils



shop soils loose grit cooling fluids cosmolines

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# **PROCESS CONTROL**

The product is supplied as a liquid concentrate and diluted with water to 5 - 20% Esseco Aqueous Cleaner M-AERO-NS concentrate by volume. Aqueous Cleaner concentration in the wash bath can be measured and controlled by a simple titration using readily available test equipment.

Operating temperature range is 20 - 70 °C. Low spray, mechanical or ultrasonic agitation is used to enhance cleaning.

Parts cleaned with Esseco Aqueous Cleaner M-AERO-NS can be rinsed with warm water prior to drying.

*Oil Separation:* Esseco Aqueous Cleaner M-AERO-NS rapidly splits oils to the surface of the wash solution to allow for separation and extending the bath life of the cleaning chemistry.

Water Hardness: Esseco Aqueous Cleaner M-AERO-NS is tolerant up to 150 ppm of total water hardness.

#### STANDARD PACKAGING

1000 litre Intermediate bulk containers (IBCs), 200 and 25 litre polyethylene drum

FOR HANDLING INFORMATION PLEASE CONSULT THE SAFETY DATA SHEET.

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