



TECHNICAL DATA SHEET

ESSECO AQUEOUS CLEANER M-HP-2

ESSECO AQUEOUS CLEANER CONCENTRATE

PRODUCT DATA AND TYPICAL PROPERTIES

Esseco Aqueous Cleaner M-HP-2 metal spray cleaner is a unique, environmentally sensible, inorganic based, aqueous cleaner. It is designed to clean a variety of soils from ferrous and non-ferrous metal surfaces such as steel, copper, brass and aluminium. The unique chemistry of Esseco Aqueous Cleaner M-HP-2 makes it an ideal choice in high pressure or normal spray washers, for general purpose metal cleaning applications. Esseco Aqueous Cleaner M-HP-2 metal spray cleaner is formulated for rigorous general purpose cleaning applications and extended bath life compared with existing competitive products. This product exhibits oil splitting properties at elevated temperatures so may be used with skimming or coalescing filtering systems to further extend bath life.

Odour	: slight odour of surfactants/detergents
pH (10% solution)	: 11.2 (approximately)
Flash Point	: none
Surface Tension	: 29 dynes/cm
Viscosity	: <100 cps

PRODUCT SPECIFICATION

Appearance	Pale straw to amber, clear to slightly hazy liquid.
Specific Gravity (25°C)	1.08-1.13
pH (25°C, neat)	11.60-12.05

APPROVALS

M-HP-2 meets the following requirements:

- MIL-C-29602 Cleaning Compounds for Parts Washers and Spray Cabinets, Type I
- Allied Signal EMS 53170 Material Requirements for Aqueous and Semi-aqueous Degreasing, Type I & II, Class A & B and Grade 2

PERFORMANCE

Features

- Corrosion inhibited
- Low percentage usage
- Unique formulation
- No ozone depleting potential
- No VOCs
- Low odour
- Not hazardous
- Low toxicity, no glycol ethers
- Low foaming
- Low BOD/COD values
- Not flammable

Benefits

meets above test requirements, safe on variety of metals
cost effective
superior cleaning results
environmentally friendly
no VOC permits required
user friendly
no special safety or storage conditions
worker safety
suitable for high pressure spray washing
easy disposal, simple effluent treatment
safe in all cleaning equipment

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SUBSTRATE COMPATIBILITY

Esseco Aqueous Cleaner M-HP-2 is suitable for cleaning a wide variety of ferrous and non-ferrous substrate metals, including the following:

Carbon Steels:

1010, 1020, 1030 carbon steels
4140 low alloy Cr and Mo steels
4340 low alloy Cr, Mo and Ni steels

Stainless Steels:

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

Nickel Alloys:

Monel
Inconel
Incoloy
Hastelloy

Titanium Alloys:

Grade 2
Grade 5
Grade 7
Grade 9
Grade 12

Cast Irons (high carbon steels):

SAE – G2500 cast iron
SAE – J434c ductile iron

Copper Alloys:

Yellow Brass
Admiralty & Naval Brass
Nickel-Aluminium Alloys
Copper-Nickel Alloys

Aluminium Alloys:

AA 1100, AA 2024
AA 3003, AA 4032
AA 5052, AA 6061
AA 7075
Cast Alloys

SOILS AND CONTAMINANTS TO BE REMOVED

The following soils can be removed using Esseco Aqueous Cleaner M-HP-2:

sulphur based cutting fluids	WD 40/3-in-1 oils	shop soils
automotive oils	polybutene oils	loose grit
lithium grease	cycloparaffins	cooling fluids
mineral oils	lipstick	cosmolines
vegetable oils	stick wax 140	drawing compounds
lapping compounds		

PROCESS CONTROL

The product is supplied as a liquid concentrate and diluted with water to 3 - 10% Esseco Aqueous Cleaner M-HP-2 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 40 - 75°C, with typical use on brass, copper and copper alloys at 60°C or less. Normal or high pressure spray is used to enhance cleaning.

Parts cleaned with Esseco Aqueous Cleaner M-HP-2 can be rinsed with warm water prior to drying.

Oil Separation: Esseco Aqueous Cleaner M-HP-2 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-HP-2 is tolerant up to 200 ppm of total water hardness.

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STANDARD PACKAGING

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

FOR HANDLING INFORMATION PLEASE CONSULT THE SAFETY DATA SHEET.

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