TECHNICAL DATA SHEET

H 111

Engineered Pre-Commission Cleaning Chemical

1. PRODUCT DESCRIPTION

H 111 is a professionally engineered alkaline cleaning compound developed for pre-commission cleaning of closed/open water systems in accordance with recognized HVAC commissioning practices.

H 111 is a specially formulated chemical cleaning compound designed to effectively remove:

- Construction debris
- Mill scale and corrosion products
- Oil, grease and hydrocarbon residues
- Welding flux residues
- Silt and suspended solids

It is intended for pre-commission cleaning of:

- Closed chilled water systems
- Closed hot water systems
- HVAC pipework networks
- Heat exchangers
- Pumps and auxiliary equipment
- Mild steel and copper piping systems

H 111 provides temporary metal protection during the cleaning process, minimizing flash rusting before the system is treated with a corrosion inhibitor.

Recommended for use prior to final system chemical treatment.

2. MECHANISM OF ACTION

H 111 functions by:

• Dispersing and suspending corrosion deposits
• Emulsifying oil and grease contaminants
• Loosening sludge and construction residues
• Providing alkaline corrosion protection during circulation

This ensures clean internal metal surfaces and allows uniform film formation when a corrosion inhibitor is subsequently applied.

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3. APPLICATION & DOSAGE

Application:
For pre-commission cleaning of new or fouled systems.

Recommended Dosage:
2 – 4 kg per m^3 of total system volume.

Circulation Time:
24 – 48 hours depending on contamination level.

Procedure:

• Circulate continuously during cleaning period.
• Drain system completely after cleaning.
• Flush thoroughly with clean water.
• Introduce corrosion inhibitor after final flush.

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4. TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Form: Liquid
Color: Pale green
Specific Gravity @ 25°C: 1.18
pH (Neat): 10 – 12
Solubility: Completely soluble in water
Flammability: Non-flammable
Volatility: Non-volatile

5. COMPATIBILITY

Compatible with:

- Carbon Steel
- Mild Steel
- Cast Iron
- Copper
- Brass
- Stainless Steel

Not recommended for prolonged exposure to:

- Aluminum surfaces without compatibility verification

6. PACKAGING

Available in:

25 kg HDPE drums

7. STORAGE & SHELF LIFE

Store in tightly closed original containers in a cool, dry, well-ventilated area.

Protect from extreme temperatures and freezing.

Shelf Life: 24 months under recommended storage conditions.