Document No.: H2A-TDS-H 444-01
Revision: 00
Issue Date: 15/02/2026
Prepared by: Technical Department

TECHNICAL DATA SHEET

H 444

Tannin-Based Corrosion Inhibitor for Closed Water Systems

1. PRODUCT DESCRIPTION

H 444 is a high-performance tannin-based corrosion inhibitor formulated with additional organic inhibitors to protect steel, copper, and other non-ferrous metals in closed water systems.

It is specifically designed for:

• Closed chilled water systems
• Closed low-pressure hot water heating systems

The product contains a built-in pH indicator to assist in dosage control.
⚠ Not suitable for systems containing Aluminum.

2. MECHANISM OF ACTION

H 444 protects metals via a dual mechanism:

1. **Tannin Film Formation:** Forms a stable, corrosion-resistant tannate layer on metal surfaces.

2. **Organic Inhibitors:** Complement the tannin by enhancing protection for copper and steel surfaces.

This prevents corrosion while minimizing sludge formation in properly maintained systems.

3. APPLICATION & DOSAGE

Initial Dosing:
3 – 5 kg per m³ of total system volume

Target Active Reserve:
80 – 120 ppm tannin equivalent

Recommended Operating pH:
8.0 – 9.5

Monitoring:
pH indicator in the product can be used to monitor and control dosage.

---

4. TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Appearance: Dark brown liquid
Odor: Mild characteristic
pH (as supplied): 7.5 – 8.5
Specific Gravity @ 25°C: 1.10 – 1.20
Solubility: Completely soluble in water
Flammability: Non-flammable
Volatility: Non-volatile

---

5. COMPATIBILITY

Compatible with:
• Mild Steel
• Carbon Steel
• Cast Iron
• Copper
• Brass

Not compatible with:
• Aluminum or aluminum-containing systems

---

6. PACKAGING

Available in:
25 kg polydrums

---

7. STORAGE & SHELF LIFE

Store in tightly closed original containers in a cool, dry, well-ventilated area away from direct sunlight.
Shelf Life: 24 months under recommended storage conditions.
