



RXSOL

CHEMO PHARMA INTERNATIONAL

Technical Data Sheet (TDS)

RXSOL-50-5005-025

Condensnol Amine Corrosion Control

Condensnol Amine Corrosion Control is a concentrated liquid neutralising-amine treatment formulated to control corrosion and pH in **condensate and feedwater systems**. A balanced blend of low, medium and high volatility amines volatilizes with steam, **neutralizes CO₂-derived carbonic acid** and other acidic gases throughout the steam loop, and is recycled with the condensate. It helps maintain an alkaline environment and forms a protective film on metal surfaces to reduce corrosion risk. Ideal for use across boilers, steam lines, heat exchangers, and condensate return networks at a wide range of pressures.

Dosage & Control

- **Control Method:** Dose to maintain **condensate pH** in the recommended range.
 - **Typical pH Targets:** General condensate **8.3-9.0**; at main condensate pump outlet **8.6-9.5**.
 - **Starting Example:** For ~10 m³ system volume, start at approx. **0.65 L/day** and adjust to pH.
 - **Adjustment Factors:** CO₂ load, system pressure, steam carryover, condensate return rate and blowdown.
 - **Shutdown/Dormant Protection:** Maintain alkalinity/film during outages to limit moisture/oxygen attack.
- Suggested monitoring points and limits:*

Sampling Location	Target pH
Main condensate pump outlet	8.6 – 9.5
Condensate return (typical lines)	8.3 – 9.0
Feedwater tank / DA outlet	Alkaline (operator setpoint)

Complementary Treatment: For best results, use alongside a suitable *oxygen scavenger* and hardness/scale control program as per boiler water treatment best practice.

Fields of Application

- Condensate return lines, condensate pumps, feedwater systems
- Steam lines, heat exchangers, process heaters
- Medium to high-pressure boilers (including ultra high-pressure)
- Protective use during *dormant/idle* periods

Sampling

A representative condensate sample should be collected daily for analysis. The sample must always be taken from the same sampling point, cooled, and tested immediately. Testing should be carried out strictly in accordance with the test kit instructions, and all results must be recorded.

Condensate Control - Dosing Parameters (all pressure ranges)

The normal operating pH range is 8.5 to 9.2.

Measured pH

If the pH is below 8.5, increase the dosage by 25% and re-test after 24 hours, or sooner if required.

If the pH is within the range of 8.5 to 9.2, the system is under control and no dosage adjustment is required; continue routine monitoring.

If the pH is above 9.2, reduce the dosage by 25% and re-test after 24 hours, or sooner if required.

These values are recommended based on operational experience and are not intended to override boiler manufacturer guidelines or company operating procedures.

Regular testing is essential to ensure that treatment levels remain correct. Refer to the dosage chart to maintain the condensate pH within the target range of 8.5 to 9.2.

Technical Properties

Parameter	Typical
Appearance	Clear to pale yellow liquid
Specific Gravity @ 25 °C	~ 1.00 (approx.)
Odour / Volatility	Aminic; volatile with steam
Boiling Point	~ 100 °C (aqueous)
System pH Control	Maintain condensate 8.3-9.0 (8.6-9.5 at pump outlet)
Compatibility	Compatible with common boiler/condensate metallurgy*
Packaging	Typically 20-210 L drums (confirm available sizes)

*Verify suitability for aluminium/copper alloys per site standards. Avoid excessive pH to prevent stress issues in sensitive materials.

Features and Benefits

- **Neutralises acidic gases** (CO₂ and others) to suppress carbonic acid formation.
- **Volatile multi-amine blend** protects the entire steam/condensate loop.
- **Protective film action** on metal surfaces to reduce corrosion and pitting.
- **Improves condensate return** by minimizing iron pickup and line attack.
- **Easy to use liquid** with simple pH-based control and economical dosage.
- **Compatible with boiler programs** (oxygen scavengers, phosphate/polymer, etc.).

Safety & Handling

- Use standard PPE (gloves, goggles, apron). Avoid skin/eye contact.
- Provide ventilation when handling concentrated amines.
- Store tightly closed, away from heat and incompatible materials.
- Consult the product SDS for full first-aid and safety guidance.

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