



RXSOL

CHEMO PHARMA INTERNATIONAL

Technical Data Sheet (TDS)

RXSOL-42-4029-050

CHEMZOL 941

CHEMZOL 941 Corrosion Scale Inhibitor Boiler Treatment is a high-performance liquid treatment, specially engineered with phosphate polymers for application in steam boilers. Formulated for systems utilizing softened make-up water, it effectively disperses iron and phosphate sludge, ensuring clean and efficient boiler operation.

The advanced polymer blend promotes the transport of calcium, magnesium, iron, phosphate, and silica through the boiler system, preventing the formation of stubborn deposits.

By minimizing scale and sludge buildup, it helps extend steam production cycles, enhances heat transfer efficiency, and reduces the risk of tube overheating and associated maintenance downtime.

Dosage

- Dosage (ppm) = (Feedwater Hardness × F) + (Feedwater Iron × 20)
 - Select Factor F based on boiler pressure:
 - Use **F = 23** for boilers up to **30 bar**.
- Most **industrial and utility boilers globally** operate between **10-40 bar** (low to medium pressure steam production). **F = 23** works well for boilers using softened feedwater, which is very common internationally. Even for pressures slightly above 35 bar (up to 45 bar), using F = 24 still keeps treatment safe and effective without under- or overdosing.

Manage Phosphate reserve after dosing the product as per below:

Boiler Pressure	Phosphate Reserve
0-20 bar	30-70 ppm
21-40 bar	20-50 ppm
41-60 bar	20-40 ppm
61-70 bar	15-30 ppm

Maximum pressure limit for this product is **60 bar**.

OR

Simpler Direction for use

RXSOL CHEMZOL 941 should be dosed continuously to ensure effective boiler protection. It may be applied neat or diluted with soft water or cooled condensate and must be injected using a dedicated dosing system. The product must not be mixed in concentrated form with oxygen scavengers or condensate corrosion inhibitors.

The treatment is normally used together with RXSOL Alkalinity Control as part of a conventional alkaline phosphate programme for high-pressure boilers, where separate control of phosphate and alkalinity is required.

Dosage depends on feed-water quality, boiler design and steam load, and is controlled by maintaining the required phosphate (PO₄) level in boiler water using a standard test kit. As a general guide, dosing at 0.25 litres per tonne typically increases the phosphate reserve by approximately 10 mg/L, depending on water quality.

Technical Properties

Parameter	Result
Appearance	Pale Yellow, Clear liquid
Density	1.01-1.1
Boiling Point	100 degree celcius

Features and Benefits

- **Phosphate-Polymer Blend:** Combines the proven benefits of phosphate treatment with advanced polymer technology for superior boiler protection.
- **Effective Sludge Control:** Disperses iron and phosphate sludges, preventing buildup and blockages.
- **Enhanced Scale Prevention:** Efficiently transports calcium, magnesium, iron, phosphate, and silica through the system to avoid deposit formation.
- **Optimized for Softened Water:** Specially designed for steam boilers using softened make-up water.
- **Liquid Formulation:** Easy to handle, dose, and integrate into existing treatment programs.
- **Compatible with Boiler Metallurgy:** Safe for use across a wide range of boiler materials without risk of corrosion.
- **Increases Steam Production Efficiency:** Minimizes scaling and deposits, ensuring uninterrupted heat transfer and maximizing operational performance.
- **Extends Boiler Life:** Reduces the risk of tube overheating and mechanical failure, prolonging equipment life.
- **Lowers Maintenance Costs:** Prevents the formation of adherent deposits, reducing the frequency of cleaning and unscheduled shutdowns.
- **Improves Operational Safety:** Maintains boiler cleanliness, helping to avoid dangerous overheating and pressure issues.
- **Reduces Chemical Consumption:** Highly efficient formulation requires lower dosages compared to conventional treatments.
- **Simplifies System Management:** Liquid formulation ensures easy and accurate dosing with minimal handling risks.

This Safety Data Sheet is provided by RXSOL. For the most current version of this document, please visit **eastindiachemicals.com**. This document is prepared in accordance with GHS / OSHA HazCom standards. The information contained herein is believed to be accurate but does not purport to be all-inclusive. It is the responsibility of the user to determine the suitability of this information for their application.