



RXSOL

CHEMO PHARMA INTERNATIONAL

Technical Data Sheet (TDS)

RXSOL-22-1048-025

Inhibited HydroChloric Acid

Description

Inhibited Acid Cleaner RXSOL-91-1048-025 is a concentrated inhibited acid descaler specially formulated for rapid removal of mineral scale, lime deposits, rust and other inorganic deposits from water-cooled and water-heated equipment.

Scale deposits interfere with heat transfer, reduce operating efficiency, increase energy consumption and may cause localized overheating and premature equipment failure.

RXSOL-91-1048-025 chemically reacts with and dissolves calcium, magnesium and other mineral deposits, helping restore clean heat-transfer surfaces and improve equipment performance.

The product contains corrosion inhibitors to minimize attack on compatible metals during acid cleaning. It is suitable for boilers, heat exchangers, condensers, evaporators, chillers, cooling systems, pipelines and diesel-engine cooling circuits.

Note: Non-flammable and non-combustible under normal conditions.

Advantages

- Fast and effective scale remover.
- Removes calcium carbonate, magnesium salts, lime scale and rust.
- Inhibited acid formulation protects compatible metal surfaces.
- Improves heat-transfer efficiency.
- Reduces energy consumption and operating cost.
- Helps reduce equipment downtime.
- Suitable for circulation and immersion cleaning.
- Can clean many systems without dismantling equipment.
- Non-flammable.
- Suitable for preventive maintenance programmes.

Fields of Application

RXSOL-91-1048-025 is designed for removal of mineral scale, lime deposits and rust from industrial, marine and process equipment.

- Boilers and boiler evaporators
- Diesel engine cooling systems
- Heat exchangers
- Condensers
- Evaporators
- Calorifiers
- Chillers
- Cooling towers
- Closed cooling circuits
- Pipelines
- Process lines
- Compressors

- Reactors
- Steam jackets
- Kettles and tanks
- Radiators

It is widely used in automotive, bottling, chemical, food processing, manufacturing, mining, paper, pharmaceutical, refinery, rubber, plastics, steel, textile and utility industries.

Method of Use

- 1. Pre-cleaning:** If the system contains oil, grease, sludge or carbonized deposits, clean the system first with a suitable degreaser.
- 2. Circulation Cleaning:** Circulation is the preferred method. Prepare the required concentration of RXSOL-91-1048-025 in fresh water and circulate continuously through the equipment.
- 3. Immersion Cleaning:** Small components may be soaked in a suitably diluted solution using an acid-resistant tank.
- 4. Temperature:** The product is effective at ambient temperature. Moderate heating may accelerate scale removal where equipment and metallurgy permit.
- 5. Cleaning:** Continue circulation or soaking until the scale has been removed and acid activity has substantially reduced.
- 6. Rinsing:** Drain the spent solution completely and thoroughly rinse the system with fresh water.
- 7. Neutralization:** Circulate approximately 0.5% alkaline neutralizing solution for 2-4 hours or until an acceptable near-neutral pH is obtained.
8. Drain the neutralizing solution and perform a final fresh-water rinse before returning the equipment to service.

Dosage

Nature of Deposit	Recommended Concentration	Cleaning Method
Light Scale / Routine Cleaning	3-5%	Circulation / Soaking
Moderate Scale	5-10%	Circulation
Heavy Scale	10-20%	Circulation
Severe Localized Deposits	Up to 20%	Controlled Industrial Cleaning

Actual dosage depends upon the thickness and composition of the scale, operating temperature, circulation rate, equipment metallurgy and required cleaning time.

Typical Applications

Automotive • Closed Circuit Cooling • Radiators • Dynamometers • Extruders • Molders • Welders	Bottling • CO2 Generators • Heaters • Heat Exchangers • Rinse Tanks • Sterilizers • Washers	Chemical Industry • Dryers • Kettles • Mixers • Reactors • Scrubbers • Vacuum Pumps	Food Industry • Condensers • Ice Machines • Refrigeration Equipment • Steam Tables • Heat Exchangers
Manufacturing • Chillers • Compressors • Furnaces • Quenchers • Vacuum Pumps	Mining & Metals • Bearings • Filters • Process Lines • Radiators • Furnaces	Pharmaceutical • Heat Exchangers • Loop Systems • Pumps • Reactors • Stills • Sterilizers	Utilities • Boilers • Cooling Towers • Air Compressors • Hydrogen Coolers • Lube Oil Heat Exchangers

Specification

Appearance	Clear to coloured acidic liquid
Nature	Inhibited acidic descaling compound
Solubility	Completely soluble in water
Flammability	Non-flammable
Primary Action	Dissolves calcium, magnesium, lime scale and rust deposits
Recommended Dilution	3-20% in fresh water depending on scale severity
Compatibility	Suitable for many ferrous metals and copper alloys when used as directed
Restrictions	Not recommended for aluminium, zinc, tin or galvanized surfaces
Packaging	Order No: RXSOL-91-1048-025 Size: 25 Ltr

Compatibility

RXSOL-91-1048-025 is suitable for many ferrous metals and copper-alloy systems when used according to recommended dilution, temperature and contact time.

Do not use on Aluminium, Zinc, Tin or Galvanized Surfaces.

Compatibility with sensitive alloys, coatings, seals, gaskets and elastomers should be confirmed before prolonged exposure or full-scale cleaning.

Neutralization After Cleaning

After descaling, drain the cleaning solution completely and thoroughly rinse all treated surfaces with fresh water.

A dilute alkaline neutralizing solution of approximately 0.5% should then be circulated through the system for approximately 2-4 hours or until an acceptable near-neutral pH is obtained.

After neutralization, drain the solution and complete a final fresh-water rinse before placing the equipment back into service.

Handling

Handle as an industrial acidic cleaning chemical. Avoid contact with eyes and skin. Wear suitable protective gloves, protective clothing and eye or face protection during handling and application.

In case of skin contact, wash immediately with plenty of water. In case of eye contact, rinse cautiously with clean water for several minutes and obtain medical attention.

Do not mix with alkaline chemicals, hypochlorites, chlorine-releasing chemicals or other incompatible products.

Store in the original tightly closed container in a cool, dry and well-ventilated location away from direct sunlight, alkalis and incompatible chemicals.

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