TECHNICAL & SAFTEY DATA SHEET

SulfaClean

Inhibited Acid Cleaner for Industrial Water Systems

1. PRODUCT DESCRIPTION

SulfaClean is a high-performance inhibited acid cleaner specially formulated for the removal of calcium carbonate scales, iron oxides, corrosion products, and mineral deposits from industrial water systems.

The formulation combines organic and inorganic acids with corrosion inhibitors, wetting agents, surfactants and chelating agents to provide maximum cleaning efficiency while minimizing metal attack.

Designed for use in:

- Chilled Water Systems
- Condenser Water Systems
- Cooling Towers
- Boilers
- Heat Exchangers
- Chillers
- Piping Networks
- Multi-effect Evaporators

Suitable for most engineering metals except zinc and galvanized steel.

2. FEATURES & BENEFITS

• Rapid removal of mineral scales.
• Excellent penetration into hard deposits.
• Contains premium corrosion inhibitors.
• Low foaming formulation.
• Suitable for circulation cleaning.
• Compatible with most industrial cleaning equipment.

• Helps restore heat transfer efficiency.
• Easy neutralization after cleaning.

Typical Applications
• Chilled Water Systems
• Condenser Water Systems
• Heat Exchangers
• Cooling Towers
• Boilers
• Plate Heat Exchangers
• Piping Networks
• HVAC Systems

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3. MECHANISM OF ACTION

SulfaClean works through:

Acid Dissolution
Chemically dissolves calcium carbonate and mineral scales.

Chelation
Chelating agents keep dissolved metals in solution preventing re-deposition.

Wetting Action
Surfactants improve penetration beneath deposits.

Corrosion Protection
Special inhibitors minimize metal attack during cleaning.

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4. APPLICATION & DOSAGE

Cleaning Method
• Circulation Cleaning
• Immersion Cleaning

Recommended Concentration
Normal Cleaning 8–10%

Heavy Scale	10–15%
Maximum Concentration	15% (w/w)

If scale quantity is known:

Approximately

1.5 kg SulfaClean per 1 kg $CaCO_3$ scale

Cleaning Temperature	25–70°C

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5. CLEANING CONTROL

Monitor:
- pH
- Conductivity
- TDS
- Visual Scale Dissolution

The solution changes from purple to violet as cleaning progresses.

Final cleaning solution pH: 2.5–3.5

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6. NEUTRALIZATION & FINAL FLUSHING

After completion:
- Drain cleaning solution.
- Flush thoroughly with clean water.
- Neutralize using **H 111** until neutral pH is achieved.

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7. TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear Amber Liquid
Odor	Mild Characteristic
Specific Gravity	1.20
pH	Strong Acidic
Flash Point	Non-Flammable
Solubility	Completely Soluble

8. MATERIAL COMPATIBILITY

Suitable for:
✓ Carbon Steel
✓ Stainless Steel
✓ Copper
✓ Copper Alloys

Not recommended for:
✕ Zinc
✕ Galvanized Steel

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9. PACKAGING

Available in:
25 kg HDPE Drum

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10. STORAGE & SHELF LIFE

Store in a cool dry area.
Protect from sunlight.
Keep containers tightly closed.

Recommended storage temperature: 5–35°C

Shelf Life: 24 Months

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11. SAFETY INFORMATION

Use appropriate PPE.
Avoid skin and eye contact.
Do not mix with oxidizing chemicals.
Always consult the Safety Data Sheet before use.