

Product	Type
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**COUNTER RUST™ 199**
**Corrosion Inhibitor – Metal Protection**
**Super concentrated water soluble corrosion inhibitor**
**Application**

Counter Rust 199 is a super concentrated, water-based corrosion inhibitor designed to protect all ferrous metals and several non-ferrous metals at low treat rates with excellent hard water stability.

Counter Rust 199 is partially neutralized, requiring the addition of an alkanolamine for optimal corrosion protection.

Counter Rust 199 is ideal for use in synthetic metalworking fluids, alkaline cleaners and water-based quenchants.

**Typical Properties**

Test	Typical
Appearance	Clear, amber liquid
Specific gravity at 15.6° C	1.13
Active content %	>80
pH at 1%	7.8
pH as received	8.3

**Benefits**

- Effective protection for ferrous and several non-ferrous metals at low treat rate
- Hard water stable
- Low foaming
- Leaves a non-tacky film removable with alkaline cleaners
- Will not stain yellow metals

**Performance**
**Corrosion on cast iron chips (ASTM 4627-86)**

	% in Water	pH	Corrosion
Counter Rust 199	0.5	8.25	None

With Additional TEA or DGA for extra buffering

## Suggested Formulation Details

- Counter Rust 199 is most effective at a pH > 8.7
- Counter Rust 199 is partially neutralized. We recommend adding an alkanolamine such as triethanolamine, diglycolamine, amino methyl propanol or other amines to raise the final pH to 8.7
- For highly effective in-process corrosion protection, Counter Rust 199 should be at pH 9.0 or higher
- For indoor protection, prepare a solution containing 2-3% Counter Rust 199 at a pH of 9.0 or higher to achieve 30 days protection

## Storage and Handling

Recommended Maximum Long Term Storage Temperature*	Ambient
Recommended Minimum Temperature for Use	Ambient
Flash Point	None to boiling

\*Long term storage at temperatures above this may result in loss of performance.



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