



<b>Product</b>	<b>Type</b>
----------------	-------------

**COUNTER RUST™ 216**

**Corrosion Inhibitor – Metal Protection**

**Water-soluble, aluminum anti-stain and corrosion inhibitor**

**Application**

Counter Rust 216 is a water soluble corrosion inhibitor designed to protect aluminum from staining in mildly alkaline solution, up to pH 9.5 be used on ferrous and non-ferrous metals.

Counter Rust 216 is useful for formulating synthetic, semi-synthetic metalworking fluids as well as alkaline cleaners

**Typical Properties**

<b>Appearance</b>	<b>colorless to slightly yellow clear liquid</b>
<b>Specific gravity at 15.6° C</b>	<b>1.04</b>
<b>Total acid number, mg KOH/g</b>	<b>130</b>
<b>pH of a 1% solution</b>	<b>6.5</b>
<b>pH as received</b>	<b>7</b>
<b>Water, wt. %</b>	<b>20</b>
<b>Phosphorous content, wt. %</b>	<b>4.8</b>

**Benefits**

- Readily soluble in water
- Prevents aluminum staining at pH up to 9.5 at 0.1%
- Compatible with carboxylic acid salts
- Excellent corrosion protection to ferrous metals

**Performance**

<b>Aluminum alloys 6061 &amp; 2024</b>		
	<b>pH 9.3</b>	<b>pH 9.5</b>
<b>% Counter Rust 216 in water</b>	<b>Hours of protection</b>	<b>Hours of protection</b>
<b>0.50</b>	<b>&gt;72</b>	<b>&gt;48</b>
<b>0.25</b>	<b>&gt;48</b>	<b>&gt;24</b>
<b>0.15</b>	<b>&gt;24</b>	<b>&gt;24</b>
<b>0.10</b>	<b>&gt;24</b>	<b>&gt;24</b>
<b>0.05</b>	<b>2</b>	<b>&lt;1</b>

## Suggested Formulation Details

The pH of Counter Rust 216 is close to neutral. Use amines to raise the pH containing this product

### Synthetic and Semi-synthetic fluids

Counter Rust 216 1 – 2%

### Mildly alkaline washers and cleaners (pH <10)

Counter Rust 216 1 – 2%

## 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.



### Lockhart Chemical Company

4302 James P Cole Boulevard Flint, MI 48505

Phone: 1-810-8330 Fax:1-810-789-3266

[www.lockhartchem.com](http://www.lockhartchem.com)

email: [customerservice@lockhartchem.com](mailto:customerservice@lockhartchem.com)

**DISCLAIMER:** To the best of our knowledge, the information and recommendations contained herein are accurate. However, this information and recommendations are furnished without any warranty, representation or license of any kind. Users of our products are encouraged to run their own tests to ensure product fitness for their applications. Furthermore, users assume sole liability for any patent infringement that occurs by reason of following our recommendations or using the information given

Counter Rust is a Trademark of the Lockhart Chemical Company

2/1/2017