Chemical Methods, Inc.
20338 Progress Drive
Cleveland, Ohio 44149
216/476-8400
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TECHNICAL DATA SHEET

CM-1044
CORROSION INHIBITOR

PRODUCT DESCRIPTION

CM-1044 is an oil-free, water-soluble synthetic corrosion inhibitor especially designed for use in spray washers for protection of steel and cast iron parts. **CM-1044** contains no DEA, nitrites, phenols, mineral oil, or chromates.

CM-1044 was designed to provide in-process protection or temporary indoor storage protection on steel and cast iron. It will provide six to eight weeks storage protection under variable humidity conditions.

CM-1044 can be used in barrel and tumbling operations, spray wash systems, or soak tanks. **CM-1044** can also be added to synthetic and semi-synthetic coolants for extra rust protection and lubrication.

BENEFITS

- Indoor Rust Protection
- Dilutes with Water
- Excellent Wetting Performance

PHYSICAL AND CHEMICAL PROPERTIES

Appearance, Concentrate	Clear Amber Liquid
Appearance, 5% Dilution	Clear Liquid
Specific Gravity	1.021
Pounds per Gallon	8.52
pH, concentrate	10.5 +/- 0.2

USE DIRECTIONS

Use **CM-1044** at 2 to 5% by volume in hard or soft water at room temperature for normal application. The solution may be heated to reduce dry-off time. For increased corrosion inhibition under extreme humidity conditions, use **CM-1044** at 5% to 10% by volume. For use in cooling lubricants, use **CM-1044** at 1% to 2% by volume for added corrosion protection and lubrication.

Parameter	Range
Concentration	2% to 5%
Temperature	80 to 150°F
Time	15 to 120 seconds

SAFETY AND HANDLING

Refer to material safety data sheet for additional information about this product.

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CM-1044
TITRATION CONTROL PROCEDURES

BURET METHOD

EQUIPMENT:

- Plastic 250 ml Flask
- Graduated Pipet
- 25 ml Buret
- 0.1 N HCl Titrating Solution
- Methyl Orange Indicator Solution

PROCEDURE:

1. Fill graduated pipet to 10 ml mark with test solution.
2. Empty into flask.
3. Add 3-5 drops of Indicator Solution.
4. Add Titrating Solution slowly to flask from buret.
5. Swirl flask between titrant additions.
6. Continue titrating until color changes from **Yellow-Orange** to **Red**.
7. Multiply ml of titrating solution by **0.490** to obtain % by volume.

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DROPPER KIT METHOD

EQUIPMENT:

- Test Tube
- 1 ml Eyedropper
- 0.1 N HCl Titrating Solution
- Methyl Orange Indicator Solution

PROCEDURE:

8. Fill eyedropper to 1 ml mark with test solution.
9. Empty into test tube.
10. Add 1 drop of Indicator Solution.
11. Add Titrating Solution drop-wise to test tube from dropper bottle.
12. Swirl test tube between titrant drop additions.
13. Continue titrating until color changes from **Yellow-Orange** to **Red**.
14. Multiply drops of titrating solution by **0.208** to obtain % by volume.

Created February 8, 2012 by DCG