Divo MR VB9
Heavy duty additive for mould & scale removal

Description
Divo MR is a sequestrant based liquid detergency booster & scale remover. Divo MR is used across all food & beverage industries as a secondary additive for a wide range of applications including bottlewashing and CIP.

Key properties
Divo MR is a highly concentrated liquid additive that enhances detergency during cleaning operations & has excellent scale removing properties. Divo MR can be used for the removal of tenacious inorganic containing soils & scale. Divo MR is highly effective at removing mould, fungi & larvae in bottlewashing applications. Divo MR is also suitable for the removal of calcium oxalate (beer-stone) and calcium phosphate (milk-stone) in brewing & dairy CIP applications.

Benefits
- Suitable for automatic dosing and control, ensuring effective product use (economy and performance).
- Inhibits scale build up and prevents nozzle blockage, improving operational efficiency and effectiveness. Maintenance frequency, time and associated costs can also be reduced.
- Significantly enhances detergency, improving cleaning performance.
- Helps with the removal of rust rings and labels in bottlewashing applications, ensuring product integrity and reducing reject rates.

Use instructions
Typical use concentrations for Divo MR are 0.1 – 1%w/w (0.08 – 0.8%v/v) depending on the application, soiling, scale and water hardness. Divo MR should always be added to the water before adding caustic to prevent water hardness deposition. Divo MR is consumed by water hardness salts and scale. Free EDTA must be present to ensure effective performance and should therefore be monitored during use and additions made to maintain the required concentration where appropriate. All detergents and disinfectants should be thoroughly rinsed after use to remove them from all food and beverage contact surfaces.

Technical data
- Appearance: clear, pale yellow liquid
- Relative density at 20°C: 1.30
- pH (1 % solution at 20°C): 11
- Chemical Oxygen Demand (COD): 270 gO₂/kg
- Nitrogen Content (N): 31 g/kg
- Phosphorous Content (P): none
The above data is typical of normal production and should not be taken as a specification.
Safe handling and storage information
Store in original closed containers or (where applicable) in an approved bulk tank, away from extreme temperatures. Full guidance on the handling and disposal of this product is provided in a separate Material Safety Data Sheet.

Product compatibility
Divo MR is safe for use on materials commonly found in the beverage and food industry when applied under the recommended conditions. In the event of uncertainty it is advisable to evaluate individual materials before any prolonged use.

Test method
Determination of Divo MR by total EDTA
Reagents:
0.1 N Copper sulphate
PAN indicator (0.1% in ethanol)
Indicator Phenolphthalein
Acetate buffer solution (pH 4.66)
1 N Hydrochloric acid
Procedure:
pH-Adjustment
Add 2-3 drops of the indicator phenolphthalein to 50 mls of the use solution. Titrate with the hydrochloric acid until colourless. Add 20 mls of the acetate buffer.
Determination
Add 1 ml PAN Indicator solution to the sample (the colour changes to yellow) and titrate to a purple/red end point with the Copper sulphate solution.
Calculation
Concentration of Divo MR %w/w = titre (mls) x 0.20
Concentration of Divo MR %v/v = titre (mls) x 0.15

Determination of Divo MR by free EDTA
Reagents:
0.1 N Zinc sulphate
Indicator Phenolphthalein
Ammonium hydroxide (10% solution)
1 N Hydrochloric acid
Merck Indicator Tablets (Article-No. 1.08430)
Procedure:
pH-Adjustment
Add the same amount of hydrochloric acid used in the titration of the total EDTA to 50 mls of the use solution. Dilute the sample with 50 mls deionized water, add one indicator tablet and 2 mls ammonium hydroxide solution (the colour changes to green).
Determination
Titrate with the 0.1 N Zinc sulphate solution until the colour changes to red.
Calculation
Concentration of Divo MR %w/w = titre (mls) x 0.20

Available pack sizes
Pack size
20Lt