



# Heavy duty non-fuming acidic descaler

#### Description

Pascal is a low foaming, heavy duty, non-fuming nitric acid based descaler for use in a wide range of CIP applications in the food and beverage industry.

#### **Key properties**

- Pascal is highly effective at removing inorganic scale deposits, including calcium oxalate (beerstone).
- Pascal is low foaming and suitable for use in CIP applications under conditions of high pressure and turbulence.
- Pascal can also be used for open plant cleaning.
- Pascal is highly economical at in use concentrations.
- Pascal is formulated to be non-fuming.
- Pascal is a conductive liquid detergent and suitable for automatic dosing and control.

#### **Benefits**

- Highly effective in removing most inorganic scale deposits, improving operational efficiency.
- Can be used for the passivation of new stainless steel CIP and bottlewashing installations.
- Reduced amounts of nitrous oxides when handling and using the product, improving operator safety.
- Suitable for automatic dosing and control by conductivity, ensuring consistent delivery of product.

## **Use instructions**

Pascal is typically used for CIP applications at concentrations between 0.5-3% w/w (0.4-2.3% v/v) for descaling, depending upon the application and level of scale. Pascal can be used for OPC application at concentrations between 1-5% w/w (0.8-3.8% v/v) by applying the solution on conveyors/tracks by brushes. Make sure that full personnel protective equipment is used during the preparation of the solution and application.

**N.B.** The exact concentration, time and temperature when using Pascal will depend upon the application. All detergents and disinfectants should be thoroughly rinsed after use to remove them from all food and beverage contact surfaces.

## Agricultural use instructions

Cleaning of milking plants designed for acidified boiling water treatment

- Pascal should be prepared as a stock solution in a clean plastic labelled container. Add 200 ml of Pascal for every milking unit to 18.2 litres of cold water.
- 1.1 litres of this stock solution should then be added to the plant acid dispenser at every wash.









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- Start the plant cleaning cycle. As a guide the stock solution should be drawn in gradually over a period of 3 minutes with the remainder of the cycle being a rinse.
- Ensure the wash water has attained a temperature of at least 97°C and that the temperature of the outflow is at least 77°C.
- The occasional protein removal may be required. Carry out a separate hypochlorite treatment at the rate of 25 ml/litre of cold water.

#### Technical data

Appearance: Clear, colourless liquid

pH (1% solution at 20°C): 1 Relative density (20°C): 1.31

Chemical Oxygen Demand (COD): None

Nitrogen Content (N): 112 g/kg Phosphorous Content (P): None

## Pascal [% w/w] - Specific conductivity at 25°C [mS/cm]: -

0.5 - 15.6

1 - 29.4

2 - 58

3 - 84

4 - 111

5 - 133

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 Safety Data Sheet.

## **Product compatibility**

Pascal 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

## Reagents

0.1 N Sodium hydroxide solution

Phenolphthalein indicator

#### Procedure

Add 2-3 drops of the indicator solution to 10 ml of the test solution. Titrate with the caustic to a red end point.

#### Calculation

% w/w Pascal = titre (ml) x 0.13 % v/v Pascal = titre (ml) x 0.1