



## Product description

**pHix-up** is a blend of several magnesium oxide sources, selected and formulated in order to neutralizes rumen acidity and support rumen functions and animal health.

Designed with unique, industrial expertise, **pHix-up** acts directly on the rumen pH by neutralizing excess acid produced by bacterial fermentation. It is highly soluble, and it combines the best performing magnesium compounds providing both a fast acting and long lasting effect.

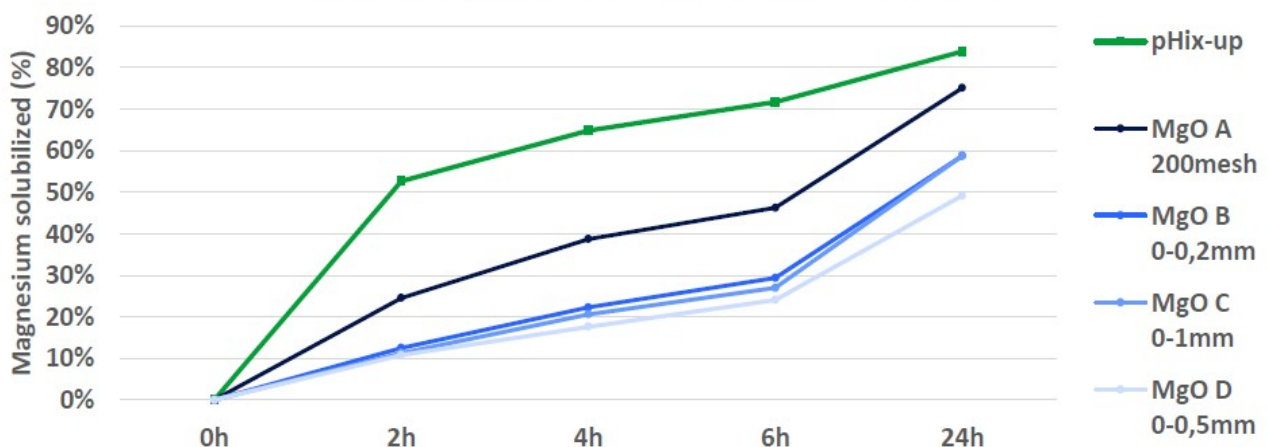
## Magnesium solubility

Once ingested, Mg-based products need to be solubilized to liberate the  $Mg^{2+}$  which can then be absorbed by the cow, with more than 80% of a cows Mg requirements absorbed in the rumen. The solubility of magnesium oxide (MgO) is dependent on source origin, calcination, particle size, chemical formula etc.

The below outlines Mg solubility tests conducted *in-vitro* using methods supported by most experiments and publications and is the closest to physiological conditions.

This illustrates the high level of solubility of **pHix-up** and that to achieve the same amount of solubilized Mg you can use less than half as much **pHix-up** compared to other MgO sources!

Percentage of magnesium solubilized in the rumen - in vitro fermentation  
Average of several in vitro tests - Centre Mondial de l'Innovation



## Magnesium absorption

The amount of Mg actually absorbed by the cow is dependent on many things, particularly potassium levels in the diet. It's important to consider things like pasture nutrient levels, lush pastures, weather conditions, stage of lactation and production level when determining Mg requirements.

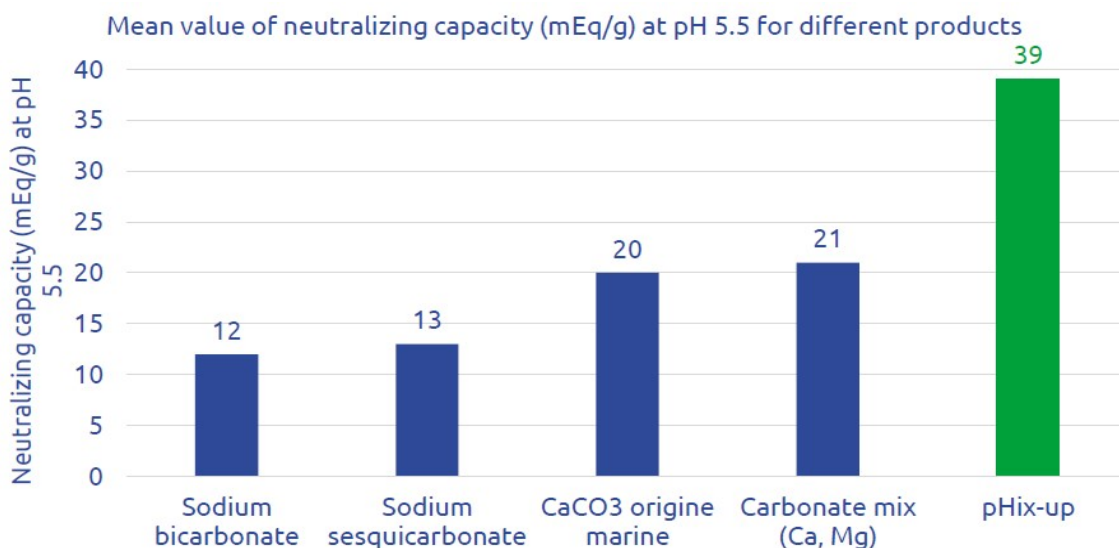
Having Mg that is available for absorption during the peak intake periods (post milking morning and night) is critical for optimum metabolic performance. **pHix-up** is proven to release more available Mg within the critical 6h period than other sources of Mg as well as moderating rumen pH. This allows for optimum dietary function and rumen health; optimising Mg uptake and feed digestibility.



## Neutralizing rumen acidity

Maintaining an optimal pH in the rumen to support microbes in fermenting feed is critical for an efficient cow. If the rumen pH falls outside of the optimal range (e.g. when it drops below normal levels during acidosis), animal performance is impaired.

The graph below presents the results of a test that compared the quantity of acid that can be **neutralized by 1kg of different products**. **pHix-up** had the highest neutralizing capacity per kg in this test, and 3.25 times more sodium bicarbonate would be required to neutralize the same amount of acid.



## Analytical composition\*

**Magnesium:** Composition - 48.7%

Guaranteed value - 45%

## Feeding directions

**pHix-up** can be used directly on farm or incorporated into mineral packs, compound feeds or blends:

- Dairy cattle 50 - 125g/head/day

## Physical characteristics and handling

**pHix-up** is available in a powder format easy to mix with typical feed ingredients.

Stored in a cool and dry area.

Bulk density: 1.1

Shelf Life: 24 months from the date of manufacture

Packaging: 25 Kg bag

\* Data provided for informative purposes only due to the mineral origin of the product