

## An effective Entero bacteria killer.

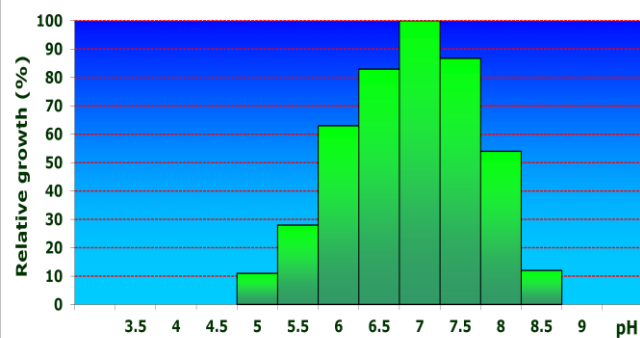
Entero bacteria are a considerable threat to the health of human beings and animals. It is estimated that 30% to 40% of the poultry and pigs are infected by Entero bacteria. These animals are often clinically, healthy carriers of pathogenic Entero bacteria. They pose a constant risk of cross-contamination with Entero bacteria to the food chain.

The multiple organic acids in Daasal® will effectively attack pathogenic Entero bacteria like E.-Coli and Salmonella species, in raw materials and in processed feed.

### Daasal® controls Entero bacteria in raw materials and processed feed.

Entero bacteria are unable to grow when the ambient pH level drops below 4. By adding Daasal®, the surrounding acidity is lowered, which prevents the growth of pathogenic bacteria.

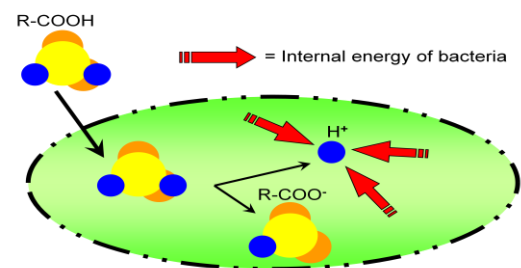
The effect of pH on the growth of Entero bacteria



Beside the ability to lower the pH level, Daasal® also contains acids that can penetrate the cell walls of bacteria. Inside the bacteria, the acids will dissociate into smaller molecules. The bacteria will react to this, by sending all its internal energy to neutralize the acids. Eventually, the shortage of internal energy will kill the bacteria from within.

The described properties of Daasal® make the product very effective for treating raw materials and processed feed.

Organic acid kills gram<sup>-</sup> bacteria from within



### Raw materials

When Daasal® is added to the raw materials, the specific properties of Daasal® will prevent the growth of Entero bacteria. By treating the raw materials and controlling the bacteria, the risk of producing contaminated feed will be reduced. High quality raw materials result in higher quality feeds.

The use of Daasal® will also reduce the risk of cross-contamination when the raw materials come into contact with other raw materials. By treating the raw materials with Daasal®, the Entero bacteria can be controlled during the entire process of feed production; from farm to factory to farm.

### Processed feed

By adding Daasal® during the production process of feed, de-contamination of Entero bacteria can be established in the finished feed.

Because Daasal® contains non-volatile organic ingredients, long-term activity is ensured, even after heating.

This makes that Daasal<sup>®</sup> will continue to work effectively against Entero bacteria after the materials are heated during the production process. This way, a processed feed with less risk of contamination can be produced.

## Equipment

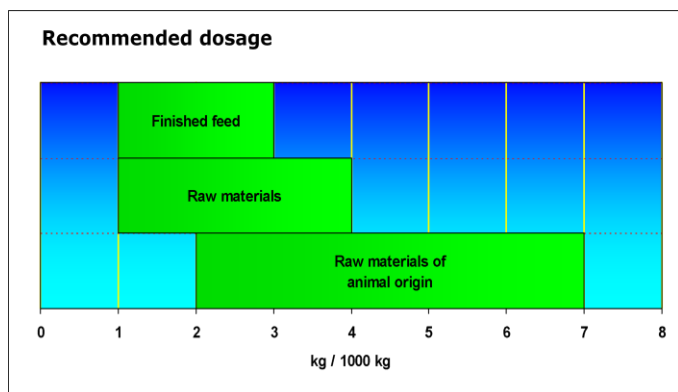
Daasal<sup>®</sup> is also very suitable for cleaning the production equipment in feedmills. A special protocol has been designed, in which Daasal<sup>®</sup> can be used to eliminate the Entero bacteria in the production equipment.

In the same way, Daasal<sup>®</sup> can also be used to clean the equipment on farms, when there are no animals in the houses.

## Dosage

Daasal<sup>®</sup> can be dosed through the raw material and/or the (mixed) feed.

Daasal<sup>®</sup> is available as a liquid product or as a dry product, where the liquid has been added to a carrier.



## The product

Daasal<sup>®</sup> contains the following ingredients:

### Preservatives:

- E200 Sorbic acid,
- E260 Acetic acid,
- E236 Formic acid
- E280 Propionic acid
- E295 Ammonium formate
- (E527 Ammonia + E236 Formic acid),
- E330 Citric acid

### Feed materials:

- 1,2 Propanediol
- Glycerine

### Binding agents:

- E551a Silicon dioxide (as carrier)

### Aromatic and appetizing substances:

- Benzoic acid, aroma

Daasal<sup>®</sup> is a mildly irritating product and therefore the directive GHS05 is valid. Daasal<sup>®</sup> should be handled conform the regulations as described in GHS05.

### Pictogram:



### Signal word: Warning

The next H-sentences apply for Daasal<sup>®</sup>: H315, H319 and H335

## Packaging

Daasal<sup>®</sup> **Dry** can be delivered in 25 kg bags and in Big Bags (type C).

Daasal<sup>®</sup> **Liquid** can be delivered in 25 kg cans, 225 kg drums and 1000 kg IBC's.



In addition, **Daavision B.V.** gives advice on dosing systems that can be used in a quick and easy way.