KANTERS · DRINKING WATER AND LIQUID FEED ACIDIFIER

Ultimate Acid

A synergistic combination of buffered organic acids with copper and zinc in chelate form — for a lower water pH, improved protein digestion and a stable gut flora in pigs and poultry.

SPECIES	FORM	PH AT 20 °C	DOSAGE
Pigs & poultry	Liquid	< 3	1–2 L / 1,000 L

THE CHALLENGE

The digestive tract of a young animal develops rapidly, and that is exactly when it is most vulnerable. Weaning in piglets and the first weeks after hatching in poultry are the periods in which the balance is most easily disturbed.

Under stress — feed changes, vaccination, climate changes, antibiotic treatment — gastric pH rises and fewer digestive enzymes are released. Nutrients remain undigested and cannot be absorbed, the microbial balance is disturbed, and the animal becomes more susceptible to pathogens such as *E. coli* and Salmonella. The consequences can be long lasting: an animal exposed to stress at a young age stays more sensitive later in the production cycle.

HOW IT WORKS
organic acids

Organic acids lower the pH in the stomach, and in the crop and gizzard of poultry. A lower pH increases the conversion of pepsinogen into pepsin and stimulates pancreatic secretion, which raises protein digestibility and nutrient utilisation.

At the same time the low pH acts as a defence mechanism and strengthens the natural barrier of the stomach. Organic acids stimulate the growth of beneficial intestinal bacteria, which reduces the share of pathogenic ones. Pathogenic bacteria damage the intestinal wall and limit nutrient absorption — a healthier gut flora therefore means better digestion, better absorption and a stronger intestinal barrier.

> **Reaching the target pH is what matters.** Ultimate Acid is most effective when the pH of the drinking water is **below 4**, with **3.8** as the target. The dose required depends on the hardness and buffering capacity of the water, so always measure the pH *after* adding the product.

HOW IT WORKS
chelated minerals

Ultimate Acid contains copper and zinc bound to glycine as chelates. Chelated minerals are absorbed considerably more easily than inorganically bound forms such as sulphates or oxides.

- **Copper** — involved in many metabolic processes, important for immunity and the production of red blood cells, with a strong antibacterial and anti-inflammatory effect. It is particularly useful during periods of high infection pressure.
- **Zinc** — an essential trace element with a wide range of biological roles: the construction and regulation of enzymes and the activation of the immune system. It is vital for growth, development and reproduction.

MANUFACTURER
trials

- Kanters, England (2012) — reducing diarrhoea in piglets
- Kanters, Iran (2010) — use in broiler drinking water
- Kanters and Ghent University (2009) — Salmonella shedding before slaughter
- Kanters, Israel (2009) — adding acids to drinking water
- Kanters, Denmark (2006) — Salmonella prevention in fattening pigs
- Kanters and Wageningen UR (2006) — effect in piglets and fattening pigs

A full list of trials and scientific references is available on request.

WHEN TO USE

- Disturbed intestinal flora and gut function
- Low feed intake
- Bacterial infection
- After weaning of piglets
- Wet litter in poultry
- During the starter period
- Before and after feed changes
- After vaccination

DOSAGE

DOSE	1–2 litres per 1,000 litres of water
DURATION	3 to 14 days, depending on the indication
TARGET PH	Below 4, optimally 3.8 — measured after addition
APPLICATION	Drinking water or liquid feed, via a dosing pump
SHARE OF RATION	Maximum 0.9 % of the daily ration of pigs and poultry

IN PRACTICE

01 **Clean the system**
Flush and clean the drinking water system with Aqua-clean before first use.

02 **Dose**
Add 1–2 litres of product per 1,000 litres of water using a dosing pump.

03 **Measure the pH**
Check the water pH after addition and adjust the dose until it is below 4.

04 **Maintain**
Clean the system every 14 days, and before and after using other water additives.

STORAGE and safety

- Store between 0 °C and 30 °C, in the dark and protected from frost. Keep the container tightly sealed.
- Do not mix with lyes, bases, amines or metals — the product reacts with them.
- For animal use only, as a complementary feed for pigs and poultry.

> **Danger — H314.** Causes severe skin burns and eye damage. Wear protective gloves and eye and face protection. Keep out of reach of children. UN 3265. Read the safety data sheet before use.

COMPOSITION AND ADDITIVES — PER KILOGRAM OF PRODUCT

CODE	ADDITIVE	AMOUNT
TECHNOLOGICAL ADDITIVES		
1k236	Formic acid	280 g
1k237i	Sodium formate	81 g
1a260	Acetic acid	45 g
1k280	Propionic acid	45 g
1a270	Lactic acid	36 g
1a200	Sorbic acid	2.4 g
NUTRITIONAL ADDITIVES		
3b608	Zinc chelate of glycine, hydrate	Zn 3.0 g
3b414	Copper chelate of glycine, hydrate	Cu 2.5 g

Carriers: propylene glycol and glycerin.

ANALYTICAL CONSTITUENTS

CRUDE PROTEIN	< 1 %
CRUDE FIBRE	< 1 %
CRUDE FAT	< 1 %
CRUDE ASH	< 1 %
SODIUM	27.4 g/kg
MOISTURE	49 %

PHYSICAL PROPERTIES

FORM	Liquid, blue
PH AT 20 °C	< 3
DENSITY AT 20 °C	1.1 g/cm³
SOLUBILITY	Fully miscible with water
PACKAGING	20 kg can · 225 kg drum · 1,100 kg IBC
SHELF LIFE	24 months in the original packaging

DISTRIBUTION
and contact

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