

The activiron™ advantage

The **activiron™** range contains an iron compound of sodium iron EDTA, which contains water soluble ferric sodium with a unique coating, or jacket, of ethylenediaminetetraacetic (EDTA) acid. This EDTA coating provides the best combined result for iron fortification in terms of improved bioavailability and excellent oxidative stability for iron nutrition.

Iron is a vital component of haemoglobin (oxygen-carrying pigment of red blood cells) and is therefore important in the formation of red blood cells. It is also a component of myoglobin, a pigment which stores oxygen in muscles for use during exercise. Iron is an essential component of several enzymes and is involved in the uptake of oxygen by the cells and the conversion of blood sugar to energy.

The sodium iron EDTA in **activiron™**, although still relatively new to Australasia, has been available for human supplementation in Europe for over thirty years. The iron compound is supported by extensive long term studies and has received official acceptance from the British Pharmacopoeia (BP) as well as the Food and Drug Administration (FDA) in the USA.

More recently, studies have also been conducted in a growing number of developing countries where death from anaemic conditions in infants and susceptible adults is high. Recently published research found sodium iron EDTA to be much more effective in raising iron levels than electrolytic iron versions. This is despite electrolytic iron being the most frequently used to fortify grain based foods to date.

Phytic acid, which is present in grains, legumes and oilseeds, is usually regarded as an anti-nutritive factor. Its negative effects on the bio-availability of iron and other essential minerals and trace elements has been described in several studies conducted on humans and monogastric animals (including horses). Unlike products containing sodium iron EDTA (**activiron™**), supplements and feeds containing elemental iron as Fe may interfere with copper, selenium and zinc absorption, and slows the metabolism of phosphorus.

Why activiron™ ?

EDTA PROTECTION:

The iron-EDTA complex (chemical formula: $\text{NaFeEDTA} \cdot 3\text{H}_2\text{O}$) protects the iron, so that it is not able to bind with phytates. The iron 'in a jacket' protective coating of the EDTA molecules, which is consumed with the food, remains bound in the acid conditions in the stomach. The iron then becomes available for absorption by the intestinal cells in less acidic conditions, like that of the small intestine. The diagram to the right shows the level of protection required to achieve relative iron bio-availability under these gastric conditions.

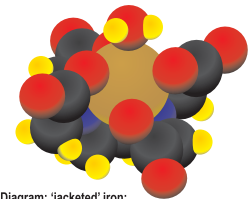


Diagram: 'jacketed' iron: Iron (brown ball) in $\text{NaFeEDTA} \cdot 3\text{H}_2\text{O}$ (activiron) is 'jacketed' and thus protected from phytates which hamper absorption of the iron.

Diagram source: Ruud Cuypers and Ton Marcellis, Wageningen University, Laboratory for Organic Chemistry

Applying advanced technologies, **activiron™** is the first, and only range of equine supplements, in Australasia to use a superior form of bio-available iron (Fe) as ferric sodium EDTA (NaFeEDTA). This soluble iron is the only one to have a unique jacketed coating offering several significant advantages over other iron formulations, such as:

- Higher adsorption rate in the body
- No negative influence on the bio-availability of other vitamins and minerals including vitamin E, selenium and copper.
- No metallic taste, highly palatable
- Minimal gastrointestinal disturbances
- No risk of iron overload

New Technology

Superior Advantages



the activiron™ range

activiron™ PERFORMANCE PLUS

activiron™ Performance Plus combines selected premium organic trace minerals, vitamins, essential amino acids, micronutrients and coenzymes which work together to maximise bio-availability and nutritional uptake, as well as to support the specific needs of performance horses.



With the inclusion of the unique active FeNaEDTA, activiron™ Performance Plus aids in red blood cell formation, blood building, appetite stimulation, recovery, immune support, coat condition and energy production and metabolism. Performance horses need extra nutritional support to counteract the physical demands of intensive work, to maintain optimal conditioning and to give them the competitive edge. Activiron™ Performance Plus delivers over 21 premium vitamins and minerals, essential amino acids, micronutrients and co-enzymes in one palatable low dose daily powder.

Active Constituents Per 30g

Iron (Fe) as ferric sodium EDTA (activiron™)	250mg
Selenium (organic)	500mcg
Copper (organic)	25mg
Manganese (organic)	100mg
Zinc (organic)	50mg
Vitamin E	1000iu
Biotin	500mcg
Folic Acid	50mg
Vitamin B1	100mg
Vitamin B2	50mg
Nicotinic Acid (B3)	300mg
Pantothenic Acid (B5)	100mg
Vitamin B6	100mg
Vitamin B12	100mcg
Glycine	200mg
Lysine	200mg
Methionine	200mg
Choline	50mg
Inositol	100mg
Lutein	25g

PACK SIZES: 1.75kg, 3.5kg & 8kg

DAILY FEEDING RATES:

- Race Horses	30g	- Performance Horses	30g
- Endurance Horses	30g	- Breeding Stallions	60g
- Yearlings in sale prep	30g	- Lactating mares	30g
- Ponies	15g	- Horses in poor condition or recovering from illness	60g

activiron™ PASTE



activiron™ Paste is a bio-available oral iron supplement for horses in training and competition on grain based diets or where iron supplementation is required.

ACTIVE CONSTITUENTS: Each 20mL dose of activiron™ Paste contains 400mg Iron (Fe) as sodium ferredetate (NaFeEDTA) in a palatable high energy paste.

PACK SIZE: 60mL tube. Each tube contains 3 doses of activiron™ Paste.

PALATABILITY: Activiron™ Paste is a highly palatable paste with a caramel flavour.

DIRECTIONS FOR USE:

Initial Course- 20ml 3 times a week for 2 weeks

Maintenance- 20ml twice in the week leading up to competition, then 20ml once after competition.

For a more specific dose of activiron™ Paste based on your horse's individual iron requirements, consult your veterinarian for recommendations following blood testing.

Can be used in conjunction with activiron™ Performance Plus powder to boost iron levels prior and after strenuous exercise.



Zoo Pets PTY LTD

4/3 Terrace Road,
North Richmond NSW 2754 Australia

Ph: 1300 787 041 or +61 (0)2 4571 4211

www.zoopets.com.au

This product is manufactured to GMP (Good Manufacturing Practices) standards in a fully licensed facility.

All information is as accurate and up to date as possible. Since Zoo Pets Pty Ltd cannot anticipate or control the conditions under which this information may be used, each user should review the information in the specific context of the intended application. Zoo Pets Pty Ltd will not be responsible for damages of any nature resulting from use of or reliance upon this information.

No expressed or implied warranties are given other than those implied mandatorily by Federal, State or Territory Legislation.

technicalnotes