

# Manganese

**KeyShure® Plus** is a *Metal Amino Acid Chelate* (AAFCO) No. 57.142. The unique attribute of a Metal Amino Acid Chelate is that the molecular weight is less than 800 daltons with a mole ratio of 1 mole of metal to 2 moles of amino acid to form coordinate covalent bonds.

**KeyShure® Plus** combines superior performance with exceptional value. You get the quality you expect from a world-class manufacturer and the no-frills pricing you need to maximize profitability.



## **Feeding Recommendations:**

	Recommendations	g/hd/d	g/US Ton Complete Feed	mg/lb DMI
Dairy Cattle	Calves			
	Milk Replacer		303	151
	Starter		202	101
	Growing Heifers			
	200 - 500 lb BW	1.4	235	117
	501 - 800 lb BW	1.7	206	103
	801 - 1,100 lb BW	2.2	204	102
	Cows			
	Non-Lactating	2.9	205	95 - 108
	Lactating	3.25 -4.58	144	65 - 78
Beef Cattle	Grow/Finishing			
	400 - 600 lb BW	0.6	101	50
	601 - 800 lb BW	0.8	101	50
	801 - 1,000 lb BW	1.1	101	50
	Cows			
	Gestating	2.2	202	101
	Lactating	2.5	202	101
Goats	All	323 mg/ 100 lb BW	202	101
Sheep	All	323 mg/ 100 lb BW	202	101
Horses	All	101 mg/ 100 lb BW	202	101
Swine	Creep		20	
	Nursery		15	
	Grower		10	
	Finisher		10	
Poultry	Sow/Boar		126	
	Chicks		303	
	Broilers		303	
	Breeders		505	
	Laying Hens		126	
	Turkeys		303	
Aqua	Salmonids and Marine Fish		189	
	Tilapia and Freshwater Fish		189	
	Shrimp		252	
Companion	Canine			
	Adult Maintenance		25	
	Growth & Reproduction		36	
	Feline			
	Adult Maintenance		38	
	Growth & Reproduction		38	
Specialty	Deer	0.7		
	Elk	1.4		
	Llamas	0.4		

## **Guaranteed Minimum Analysis:**

Manganese	18%
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## **Typical Analysis:**

Crude Protein	28%
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## **Physical Characteristics:**

Color	Light tan to dark tan speckled
Taydaysa	Standard: Fine granular
Texture	Granular: Granular
Particle Size	Granular: 80% between US 20-50 mesh
Particle Characteristics	Granular: Free flowing
Package Type	Multi-wall, poly-lined bag, Woven polypropylene fabric tote
Package Weight	25 kg (55.1 lb), 1,000 kg (2,200 lb)
Shelf Life	3 years after the date of manufacture

# Safe Handling & Storage:

KeyShure Plus Manganese is safe for use when directions on the label and Safety Data Sheet are followed. Store the product in a clean and dry environment, in the original package. Rotate inventory to maximize product freshness.

Feeding recommendations are designed to meet 100% of animals trace mineral requirements.

HORSES: All recommendations based on mature horse of 500 kg body weight consuming 4 kg of complete feed.

Product not available in all countries.





#### **Chelated to Microbial Protein**

- 28% protein from microbial biomass has a superior amino acid profile as compared with the plant proteins used in competing products.
- Non-Grain, Non-GMO.

## **Higher Mineral Concentration**

- KeyShure Plus has among the highest mineral content in the chelated mineral industry.
- Formulation flexibility: higher concentration requires less space in premixes and manufactured feeds.
- Reduced carbon footprint; lower transportation costs/emissions, reduced manufacturing inputs.
- Granulated formulation available for reduced dust and ease of handling.

## **KeyShure Performance and Value**

- Quality you expect from a world-class manufacturer.
- Proven Performance.
- Exceptional Value.

## Why is Manganese Important?

Manganese is concentrated in the animal bones. It is an important cofactor for many enzymes involved in energy and protein metabolism. Manganese is also required for mucopolysaccharide synthesis. This is a major component in the organic matrix of bones.



Balchem Animal Nutrition & Health is the global leader in choline production, chelation and encapsulation technology. With a growing portfolio of nutrition products and a dedication to innovation and industry sustainability, Balchem is leading the charge to meet the nutritional needs of ruminants, monogastrics and companion animals. The company consists of three business segments: Human Nutrition & Health; Animal Nutrition & Health; and Specialty Products. Balchem employs over 1,400 people worldwide who are engaged in diverse activities, committed to developing the company into global market leadership positions.

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