

# **FREE-CHOICE MINERAL LICK (CATTLE)**

**updated 20 December 2022**

## **Raw ingredients**

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<b>#</b>	<b>Ingredient</b>
<b>Ing 1</b>	Bentonite
<b>Ing 2</b>	Biochar
<b>Ing 3</b>	Calcium Carbonate
<b>Ing 4</b>	Cobalt Carbonate
<b>Ing 5</b>	Copper Sulfate
<b>Ing 6</b>	Diatomaceous Earth
<b>Ing 7</b>	Dicalcium Phosphate
<b>Ing 8</b>	Disodium Phosphate
<b>Ing 9</b>	Dolomitic Lime
<b>Ing 10</b>	Iron Sulfate
<b>Ing 11</b>	Kelp
<b>Ing 12</b>	MAP
<b>Ing 13</b>	Ongewaste Khoisan Salt ("Khoisan salt")
<b>Ing 14</b>	Potassium Chloride
<b>Ing 15</b>	Rumevite P12
<b>Ing 16</b>	Sodium Bicarbonate ("Bicarbonate of soda")
<b>Ing 17</b>	Sodium Carbonate ("Soda ash")
<b>Ing 18</b>	Sodium Phosphate
<b>Ing 19</b>	Sulfur Dust
<b>Ing 20</b>	Zinc Sulfate

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## Master mixes

Note that ratios are by mass

#	Ingredients	Ratio
Mix 135	Sodium phosphate	1
	Cobalt carbonate	1
	Sodium carbonate	1
	Sodium bicarbonate	5
	Khoisan salt	14
Mix 278	Potassium chloride	1
	Zinc sulphate	1
	Rumevite P12	1
	Khoisan salt	12
Mix 46	Iron sulphate	1
	MAP	1
	Khoisan salt	8
Mix 9 ("Pat Coleby")	Dolomitic lime	2
	Kelp	1
	Copper sulphate	1
	Sulphur dust	1
Mix 10	Diatomaceous earth	1
	Kelp	1
Mix 11	Khoisan salt	25
	Biochar	4
Mix 12 (2Ca:1P)	Calcium Carbonate	4
	Disodium phosphate	1
	Dicalcium Phosphate	1
Mix 13 (2P:1Ca)	Disodium phosphate	1
	Dicalcium phosphate	1
	Calcium Carbonate	1

## Mixes for each wagon compartment

Note: Compartments containing more than one master mix must be combined in equal parts of each master

Compartment #	Content
1	Mix 11
2	Mix 10
3	Mix 9
4	Ing 16 - Sodium Bicarbonate
5	Mix 12
6	Ing 1 - Bentonite
7	Mix 11
8	Mix 13
9	Ing 11 - Kelp

Compartment #	Content
10	Mix 11
11	Mix 10
12	Mix 9
13	Mix 278
14	Mix 135
15	Mix 46
16	Mix 9
17	Mix 10
18	Mix 11

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Total unique  
compartments:

11

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*Note that prices are not regularly updated and may have changed							
Product	Supplier name	Person to speak to	Supplier contact		Quantity	Price	Notes
Bentonite	Serina Trading	Louise Howell	021 785 2081	<a href="mailto:admin@kaolin.co.za">admin@kaolin.co.za</a>			
Calcium Carbonate	Brenntag	Priscilla Francis	+27 21 020 1868	<a href="mailto:Priscilla.Francis@Brenntag.co.za">Priscilla.Francis@Brenntag.co.za</a>			
Cobalt Carbonate (or Bioplex Cobalt)	Alltech Biotechnology	Margit Smith	+27 21 865 2669	<a href="mailto:mlabuschagne@alltech.com">mlabuschagne@alltech.com</a>	25kg bags	R241.98/kg	
Copper Sulphate	Nexus	Hendri	0218874810	<a href="mailto:stellenbosch@nexusag.net">stellenbosch@nexusag.net</a>	25kg bags		
Diatomaceous Earth	Agrimark				10 kg bags	R16.05/kg	
Dicalcium Phosphate	Brenntag	Priscilla Francis	+27 21 020 1868	<a href="mailto:Priscilla.Francis@Brenntag.co.za">Priscilla.Francis@Brenntag.co.za</a>	25kg bags	R59.65/kg	
Disodium Phosphate	Brenntag	Priscilla Francis	+27 21 020 1868	<a href="mailto:Priscilla.Francis@Brenntag.co.za">Priscilla.Francis@Brenntag.co.za</a>	25kg bags	R66.95/kg	
Dolomitic Lime	Agrimark				50kg	R42.95 (incl.)	Widely available at most Kaapagri stores.
Iron Sulphate	Brenntag	Priscilla Francis	+27 21 020 1868	<a href="mailto:Priscilla.Francis@Brenntag.co.za">Priscilla.Francis@Brenntag.co.za</a>	25kg bags	R42.00 (excl.)/kg	
Kelp	Raw Kelp	Jacqui Wiggins	+27828995130				
MAP	Agrimark				50kg	R449.76 (incl.)	Widely available at most Kaapagri stores.
Ongewaste Khoisan Salt	Khoisan salt	Adele Saayman (or Marieta)	022 783 1520	<a href="mailto:khoisan1@mweb.co.za">khoisan1@mweb.co.za</a>	25kg bags	R34.00 (excl)/kg	Ordered in pallets (1 palett = 40 bags).
Potassium Chloride	Brenntag	Priscilla Francis	+27 21 020 1868	<a href="mailto:Priscilla.Francis@Brenntag.co.za">Priscilla.Francis@Brenntag.co.za</a>	25kg bags	R26.00 (excl.)/kg	
Rumevite P12	Rumevite regional manager	Leon De Klerk	082 901 1073				
Rumevite P12	Voermol	Hans Burger	071 208 7090				
Sodium Bicarbonate	Brenntag	Priscilla Francis	+27 21 020 1868	<a href="mailto:Priscilla.Francis@Brenntag.co.za">Priscilla.Francis@Brenntag.co.za</a>	25kg bags	R8.50/kg	
Sodium Carbonate	Protea Chemicals		021 550 8100		25kg bags	R7.10 (excl.)/kg	Purchase over the counter at 54 Killarny Avenue, Killarny Gardens, Cape Town.
Sodium Phosphate	Brenntag	Priscilla Francis	+27 21 020 1868	<a href="mailto:Priscilla.Francis@Brenntag.co.za">Priscilla.Francis@Brenntag.co.za</a>	25kg bags	R40.00 (excl.)/kg	
Sulfur Dust (Thiovit Jet 80WG)	Inteligro	Ashley Le Roux	021 882 8262	<a href="mailto:stellenbosch@inteligro.co.za">stellenbosch@inteligro.co.za</a>	20kg bags	R27.06 (excl.)/kg	
Zinc Sulphate	Brenntag	Priscilla Francis	+27 21 020 1868	<a href="mailto:Priscilla.Francis@Brenntag.co.za">Priscilla.Francis@Brenntag.co.za</a>	25kg bags	R67.00 (incl.)	