



Arm & Hammer Animal and Food Production
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DCAD Plus™

FEED GRADE POTASSIUM CARBONATE

DCAD Plus™ Feed Grade Potassium Carbonate is a white, granular product used to supplement the diets of production animals and horses with potassium to meet their nutritional needs for potassium and regulation of proper dietary cation-anion difference (DCAD).

Production Specifications

Potassium carbonate is listed as a mineral feed ingredient by the Association of American Feed Control Officials (57.101 AAFCO). Potassium carbonate is a potassium salt of carbonic acid.

Empirical Formula

K_2CO_3

Guaranteed Analysis (%)

Potassium	minimum	48.5
Moisture	maximum	14.0

Typical Analysis (% of Dry Matter)

Potassium	56.5
Dry Matter	87.0

Bulk Density

73–84 lbs./cu. ft.

Packaging

DCAD Plus is available in 50-pound bags and 2000-pound sacks.

Storage

DCAD Plus should be stored in a cool, dry area, away from incompatible acid or alkaline material such as lime. Avoid contact with lime (as CaO or $CaOH_2$) and water to prevent possible formation of caustic potash (KOH), which can cause heating.

Use Instructions

Use DCAD Plus to supplement diets with potassium to meet the animal's nutritional requirements, including proper DCAD balance. DCAD Plus provides a source of potassium without accompanying chlorides or sulfates. Feed to animals such as dairy cattle, beef cattle, sheep, poultry, swine and horses. Use as a positive ion when calculating electrolyte balance: $Meq\{(Na^+ + K^+) - (Cl^- + S^-)\}/100$ g diet dry matter.

DCAD Plus has been specially formulated to be less reactive than regular potassium carbonate. However, the product still has chemical properties such that when in contact with strongly acidic materials and water, a reaction can occur producing heat. In hot, humid weather, feed mixes containing DCAD Plus and substantial quantities of acidic materials have the potential to interact and give off heat.

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INFORMATION

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Adequate separation of these components during the mixing process should prevent this problem from developing and we recommend adding DCAD Plus™ to the mixer last—after the other ingredients have been mixed. We also recommend that the feed mix be temperature-checked at appropriate time intervals.

Our recommendation for potassium nutrition of lactating cows is to achieve total dietary potassium of 1.8 to 2.0% of total ration dry matter with higher recommended levels in summer months. Research shows that DCAD levels of +35 to +45 meq/100g dry matter delivers the potassium cows need to regulate sweat glands and stabilize the rumen, while maintaining dry matter intake and production levels.

Example Calculation

Ion	Valence	Diet Concentration Percentage	Milliequivalent Weight (g)	Milliequivalents/100 g
Na+	1	0.3	0.0230	13.04
K+	1	0.7	0.0390	17.95
Cl-	1	0.3	0.0355	8.95
S=*	2	0.3	0.0320	18.75

*Frequency not included in calculation of electrolyte balance.

Formula

$$\frac{\text{Diet Concentration \%}}{\text{Meq Wt. (g)}} \times \text{Valence} = \text{Meq/100 g}$$

Sulfur

$$\frac{.300}{.032} \times 2 = 18.75$$

Resulting Balance

$$(\text{Na} + \text{K}) - (\text{Cl} + \text{S}) = \text{Cation/Anion Balance}$$

$$(13.04 + 17.95) - (8.95 + 18.75) = 30.99 - 27.70 = +3.29 \text{ Meq/100 g}$$

Nutrient Profiles

To access the product's nutrient profile, please visit our website, www.AHfoodchain.com.

Order Information

To place orders, call Customer Service at 800-631-5591. For technical information, call 800-526-3563.

Visit www.AHfoodchain.com for more information about DCAD Plus.