



## AMINO LEAN (GRAPE)

**Anti-Catabolic, Immune Support, Mental Focus  
Fat Loss, Vasodilation**



NUTRITIONAL INFORMATION		
SERVINGS PER CONTAINER: 60		
SERVING SIZE: 5G		
	5g Serve	Per 100g
ENERGY	81kJ	1610kJ
	19Cal	385Cal
PROTEIN	4.3g	86.8g
FAT	0.0g	0.0g
CARBOHYDRATE		
- Total	0.4g	8.0g
- Sugars	0.1g	1.5g
Sodium	0mg	6mg
Potassium	0mg	3mg
Leucine	490mg	9800mg
Isoleucine	245mg	4900mg
Valine	245mg	4900mg
Glutamine	1100mg	22000mg
Arginine AKG	400mg	8000mg
Glycine	900mg	18000mg
Lysine	400mg	8000mg
Taurine	60mg	1200mg
Tyrosine	400mg	8000mg
Chromium Picolinate	50mcg	1000mcg
Vitamin C	80mg	1600mg
Caffeine	25mg	500mg

**GEN-TEC NUTRITION:** Flavoured free form amino acid blend with fat metabolisers and anti oxidants. Anyone who trains hard or performs at an elite levels knows how devastating it can be when those hard earned improvements are compromised by the loss of muscle or changes in body composition. Training is a crucial ingredient to success but so are the nutrients you provide your body to keep on improving and protecting those gains. The best thing we can do is to nourish our bodies with the right nutrients at the right time, hence investing in a product that can not only protect our hard earn gains but can support optimal body composition. AMINO LEAN is ideal for strength training athletes, body builders and those who are on a restricted calorie diet. The 5 key targeted areas and its ingredients are as follows:

**ANTI-CATABOLIC:** Protecting lean muscle is achieved via the use of amino acids such as branched chained amino acids. Branched chain amino acids play a critical role in stimulating protein synthesis and support a positive nitrogen balance which allows effective muscle repair and maintenance to take place (Rogerio and Tirapegui, 2008). During periods of fatigue, the levels of branched chained amino acids in the muscles can drop, especially during prolonged endurance events. Consuming BCAA can mitigate the symptoms of fatigue during exercise and assist in recovery post exercise (Choi et al., 2013).

**IMMUNE SUPPORT:** Glutamine is an amino acid which primary functions are to increase protein muscle repair and provide the cells of the immune system with energy (dos Santos et al., 2010). Athletes consume glutamine to protect and help the immune system recover from intense training and decrease the risk of upper respiratory tract infection (Sacks, 2003).

**MENTAL FOCUS:** During periods of calorie restriction, mental focus can take a significant hit, especially when hard training is involved. The adverse effects from this can be overcome by supplementing tyrosine and caffeine. Tyrosine is an amino acid which manufactures neurotransmitters like dopamine, norepinephrine and epinephrine (O'Brien et al., 2007). Tyrosine is observed to increase performance on stress-sensitive attention tasks which would otherwise lead to a decline in cognitive (mental ability) capacity (Mahoney et al., 2007). During acute periods of stress there is a heightened use of tyrosine-dependent neurotransmitters which is a contributing factor to the reduction in motivation, attention and working memory, therefore consuming tyrosine can increase "brain power" under times of moderate-heavy stress (Mahoney et al., 2007). Caffeine not only combats fatigue but it aids in the release of endorphins which reduce the perception of pain during exercise (Sökmen et al., 2008). In addition, like tyrosine, it stimulates the production of neurotransmitters like dopamine and norepinephrine which improves alertness and vigilance during periods of fatigue and sleep deprivation (Goldstein et al., 2010).

**FAT LOSS:** In order to manage body fat levels, 'AMINO LEAN' has been formulated with caffeine derived from green tea extract and the Epigallocatechin gallate (EGCG) present in green tea which aids fat loss (Sinclair and Geiger, 2000). Together they can shift substrate utilisation during exercise to increase the amount of fatty acids used for energy (lipolysis) and suppress the body's use of stored glycogen for fuel. This increased mechanism of fatty acid mobilisation is ideal for athletes who aim to keep the body fat levels low without sacrificing lean muscle mass. Overall the effects of caffeine and green tea extract increase thermogenesis and mobilisation of fats which aids in the reduction body fat levels.

**VASODILATION:** The addition of arginine alpha-ketoglutarate and glycine increase vasodilation of blood vessels, allowing a more fluent blood flow of nutrients to the muscle cells, thus aiding nutrient transport (Botchlett et al., 2013). Furthermore its use in combination with the above ingredients ensures that 'AMINO LEAN' provides an all-round approach to supporting optimal body composition.

**INGREDIENTS:** L-glutamine, instantised BCAA 2:1:1 (L-leucine, L-isoleucine, L-valine), glycine, flavour, L-arginine AKG, L-lysine, L-tyrosine, ascorbic acid, taurine, sweetener (sucralose), green tea extract, acidity regulator (citric acid), natural colour (anthocyanins), chromium picolinate, silicon dioxide.

**SUGGESTED USES:** Mix 5g (1 teaspoon) in 250mls of water and consume before or during exercise or throughout the day as a healthy, tasty beverage.

**FLAVOURS:** Tropical, Grape, Watermelon, Blueberry, Orange

**SIZES:** Available in 300g

BOTCHLETT, R., LAWLER, J. M. & WU, G. 2013. Chapter 45 - L-Arginine and L-Citrulline in Sports Nutrition and Health. In: BAGCHI, D., NAIR, S. & SEN, C. K. (eds.) Nutrition and Enhanced Sports Performance. San Diego: Academic Press. CHOI, S., DISILVIO, B., FERNSTROM, M. H. & FERNSTROM, J. D. 2013. Oral branched-chain amino acid supplements that reduce brain serotonin during exercise in rats also lower brain catecholamines. *Amino acids*, 45, 1133-1142. DOS SANTOS, R. D. G. C., WIANA, M. L., GENEROSO, S. V., ABANTES, R. E., DAVISSON CORREIA, M. I. T. & CARDOSO, V. N. 2010. Glutamine Supplementation Decreases Intestinal Permeability and Preserves Gut Mucosa Integrity in an Experimental Mouse Model. *Journal of Parenteral and Enteral Nutrition*, 34, 408-413. GOLDSTEIN, E. R., ZIEGENFUSS, T., KALMAN, D., KREIDER, R., CAMPBELL, B., WILBORN, C., TAYLOR, L., WILLOUGHBY, B., STOUT, J., GRAVES, B. S., WILDMAN, R., IVY, J. L., SPANO, M., SMITH, A. E. & ANTONIO, J. 2010. International society of sports nutrition position stand: caffeine and performance. *Journal of the International Society of Sports Nutrition*, 7, 5. MAHONEY, C. R., CASTELLANI, J., KRAMER, F. M., YOUNG, A. & LIEBERMAN, H. R. 2007. Tyrosine supplementation mitigates working memory decrements during cold exposure. *Physiology and Behavior*, 92, 575-582. O'BRIEN, C., MAHONEY, C., THARION, W. J., SILS, I. V. & CASTELLANI, J. W. 2007. Dietary tyrosine benefits cognitive and psychomotor performance during body cooling. *Physiology and Behavior*, 90, 301-307. ROGERIO, M. M. & TIRAPEGUI, J. 2008. Current aspects of branched chain amino acid and exercise. *Revista Brasileira De Ciencias Farmaceuticas*, 44, 563-575. SACKS, G. S. 2003. The Data in Support of Glutamine Supplementation. *Nutrition in Clinical Practice*, 18, 386-390. SINCLAIR, C. J. D. & GEIGER, J. D. 2000. Caffeine use in sports: A pharmacological review. *Journal of Sports Medicine and Physical Fitness*, 40, 71-9. SÖKMEIN, B., ARMSTRONG, L. E., KRAEMER, W. J., CASA, D. J., DIAS, J. C., JUDELSON, D. A. & MARESH, C. M. 2008. CAFFEINE USE IN SPORTS: CONSIDERATIONS FOR THE ATHLETE. *Journal of Strength and Conditioning Research*, 22, 978-86.