Deseret Biologicals, Inc. 469 W. Parkland Drive Sandy, UT 84070

## 800.827.9529 www.desbio.com

## DESBIO Datasheet LunaSomm



#### FEFECTIVE

Combines botanicals and amino acid precursors for relief from occasional sleeplessness

#### RELIEF

Promotes relaxation of the nervous system and restful sleep

SAFE Non-habit forming



Quality Nutraceutical Formulated Exclusively for Healthcare Professionals

#### Why LunaSomm?

There are many different challenges patients face when struggling with sleep issues. Some patients have difficulty falling asleep, some wake up throughout the night, while others complain that they never truly feel rested. *LunaSomm* provides a natural and comprehensive approach to addressing all of these issues by providing botanicals and amino acid precursors to promote relaxation before bedtime, phosphatidylserine to prevent abnormal awakening, and L-theanine and GABA to encourage the neurological patterns associated with calming and deep sleep.

#### **Falling Asleep Naturally**

It is estimated that nearly 37% of Americans suffer from occasional or chronic sleep difficulties.<sup>1</sup> Not getting quality sleep on a nightly basis can drastically impair your patients' daily lives and can potentially interfere with their ability to reach their healthcare goals. The major pharmaceuticals recommended for sleeplessness are classified as hypnotics. These medications actually hypnotize the body to an unnatural state of sleep and cause sedation. Recently, regular use of these medications was associated with an increased risk of both cancer and mortality.<sup>2</sup> Now even more patients are seeking an effective and natural solution for occasional and long-term sleep challenges.

**Melatonin** – This hormone, secreted during darkness by the pineal gland, plays a key role in maintaining the body's circadian rhythm or sleep/wake cycle. Melatonin is also a potent antioxidant, scavenging various organic radicals and stimulating the synthesis of antioxidant enzymes within the cell, indicating its important role in protecting and preserving the brain.<sup>3</sup>

**PhosphatidyIserine** – A phospholipid naturally found in our cell membranes, phosphatidyIserine may be effective for promoting restful sleep for those affected by physical or mental stress. When the body is under stress or blood sugar becomes unstable, the body releases abnormal amounts of cortisol. This stress hormone can cause restlessness, early morning awakening, and severe disruptions in sleep quality. Phosphatidyserine has been shown to attenuate the serum cortisol response to stress, and to improve mood and sleep quality.<sup>4,5</sup>

**5-HTP** – 5-hydroxytryptophan is the enzymatically hydroxylated form of the amino acid tryptophan and serves as the precursor to both the neurotransmitter serotonin and the hormone melatonin. Supplemental 5-HTP has been shown to improve mood and impulse control as well as promote restful sleep. 5-HTP has also been shown to be an effective treatment for improving sleep terrors in children.<sup>6</sup>

Valerian (Valerian officinalis), Hops (Humulus lupus), and Passion Flower (Passiflora incarnata) – These three botanicals have been found to be useful sleep inducers that promote both calming and sedation. Valerian is a perennial herb that has been widely used for the treatment of sleepless-

#### **Supplement Facts**

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Amount per Serving	% DV*
Vitamin C (ascorbyl palmitate) 10 mg	17%
Vitamin B6 (pyridoxal 5'-phosphate) 2 mg	100%
Valerian root	100 mg†
GABA (gamma amino butyric acid)	75 mg†
Hops flower	75 mg†
Passion flower (aerial parts)	75 mg
5 – HTP (5-hydroxytryptophan)	50 mg†
L-theanine (Suntheanine™)	50 mg†
Wild lettuce (aerial parts)	50 mg†
Phosphatidylserine	40 mg
Melatonin	1 mg†

\*Percent daily values (%DV) are based on a 2,000 calorie diet. \*Percent daily values not established.

OTHER INGREDIENTS: microcrystalline cellulose, vegetable capsule (HPMC water), magnesium stearate, silicon dioxide

Suggested Use: As a dietary supplement, take one capsule 30 – 40 minutes before bedtime, or as directed by your healthcare professional. For best results combine with *PerfectSleep*.

**Warnings:** If pregnant or breastfeeding or currently taking SSRIs, MAO inhibitors, or other medications, consult with healthcare provider before use. May cause drowsiness or sedation. For bedtime use only.



for Over 25 Years

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ness. A systematic review of 16 randomized, placebo-controlled trials of valerian found that valerian can improve sleep quality without producing side effects.<sup>7</sup> Extracts and fluid extracts from the aerial parts of passion flower are widely used as components of herbal sedatives.<sup>8</sup> Passion flower has been shown to improve sleep quality and be an effective treatment for reducing anxiety and regulating sleep fluctuations.<sup>9</sup> Hops are a widely used herb with applications as both a sleep aid and an anti-inflammatory. A study which observed EEGs of patients given 200 mg of caffeine established that a fixed valerian/hops preparation was able to reduce or inhibit the effects of caffeine on the central nervous system.<sup>10</sup>

*L-theanine as Sun Theanine* – This amino acid is derived from green tea and has been shown to promote calming and relaxation without inducing drowsiness. Theanine naturally occurs in D and L forms, but only the natural and preferred L-theanine entaimor has been shown to be well absorbed and have positive effects on neurological function. *LunaSomm* uses Suntheanine, the only form of L-theanine produced via a patented fermentation process that mimics the natural process in green tea leaves, resulting in a 100% pure L-isomer-theanine. EEGs of brain waves of patients given supplemental L-theanine appear to smooth out, indicating an increase in relaxation and calmness.<sup>11</sup> L-theanine may also counteract the excitatory effects of caffeine and has been shown to be beneficial in caffeine-induced insomnia in animal models. Among children with ADHD, Suntheanine was shown to significantly improve sleep quality via its calming effect on brain waves.<sup>13</sup>

**GABA** – Gamma-amino-butyric acid is the most important and widespread inhibitory neurotransmitter in the brain, and activation of GABA receptors is known to favor sleep. GABA deficiency has been associated with racing thoughts, depression, and other mood disorders. GABA is critical for the most important stage of sleep, the "deep" delta sleep that usually begins within 45 minutes after bedtime.<sup>14</sup> GABA is also responsible for the production of growth hormone during sleep, which influences both endocrine mechanisms and the sleep cycle.<sup>15</sup> In an outpatient, randomized, double-blind, placebo-controlled trial, an amino acid preparation of GABA and 5-hydroxytryptophan was found to reduce time to fall asleep, decrease sleep latency, increase sleep duration, and improved quality of sleep.<sup>16</sup>

<sup>1</sup>Consumer Health Sciences. The Insomnia/Sleep Difficulties Market—Key Results. National Health and Wellness Survey. Consumer Health Sciences. 2008 Jun.

<sup>2</sup>Daniel F Kripke, Robert D Langer, Lawrence E Kline. Hypnotics' association with mortality or cancer: a matched cohort study Pharmacology and therapeutics. *BMJ Open* 2012 Feb.

<sup>3</sup>Pandi-Perumal SR, Bahammam AS, Brown GM, Spence DW, Bharti VK, Kaur C, Hardeland R, Cardinali DP. Melatonin Antioxidative Defense: Therapeutical Implications for Aging and Neurodegenerative Processes. *Neurotoxicity Research*. 2012 Jun.

<sup>4</sup>Starks MA, Starks SL, Kingsley M, Purpura M, Jäger R. The effects of phosphatidylserine on endocrine response to moderate intensity exercise. *Journal of International Society Sports Nutrition*. 2008 Jul 28;5:11.



### Companion Product: PerfectSLEEP

PerfectSLEEP has been carefully formulated to address the root causes (and effects) of sleeplessness without drowsiness or unintended side effects.

Specific ingredients support the production of melatonin and naturally optimize energy production. This results in truly restorative sleep that regenerates both mind and body. PerfectSLEEP can be taken with prescription or over-the-counter sleep aids and may reduce the need for traditional sleep remedies over time as sleep cycles are normalized (consult your physician before discontinuing prescription medications). PerfectSLEEP supports the body's natural sleep cycles perfectly, allowing for perfectly natural and restful sleep.

<sup>5</sup>Benton D, Donohoe RT, Sillance B, Nabb S. The influence of phosphatidylserine supplementation on mood and heart rate when faced with an acute stressor. *Nutritional Neuroscience*. 2001;4(3):169-78.

<sup>6</sup>Bruni O, et al.L -5-Hydroxytryptophan treatment of sleep terrors in children. *European Journal of Pediatrics*. 2004 Jul;163(7):402-7.

<sup>7</sup>Bent S, Padula A, Moore D, Patterson M, Mehling W. Valerian for sleep: a systematic review and meta-analysis. American Journal of Medicine. 2006 Dec;119(12):1005-12.

<sup>8</sup>Krenn L. Passion Flower (Passiflora incarnata L.)--a reliable herbal sedative. Wien Med Wochenschr. 2002;152(15-16):404-6.

<sup>9</sup>Ngan A, Conduit R. A double-blind, placebo-controlled investigation of the effects of Passiflora incarnata (passionflower) herbal tea on subjective sleep quality. *Phytotherpy Research*. 2011 Aug;25(8):1153-9.

<sup>10</sup>Schellenberg R, Sauer S, Abourashed EA, Koetter U, Brattström A. The fixed combination of valerian and hops (Ze91019) acts via a central adenosine mechanism. Planta Medica. 2004 Jul;70(7):594-7.

<sup>11</sup>Kakuda T, Nozawa A, Unno T, Okamura N, Okai O. Inhibiting effects of theanine on caffeine stimulation evaluated by EEG in the rat. *Bioscience, Biotechnology, and Biochemistry*. 2000 Feb;64(2):287-93

<sup>12</sup>Jang HS, Jung JY, Jang IS, Jang KH, Kim SH, Ha JH, Suk K, Lee MG. L-theanine partially counteracts caffeine-induced sleep disturbances in rats. *Pharacology, Biochemistry and Behavior*. 2012 Apr;101(2):217-21.

<sup>13</sup>Lyon MR, Kapoor MP, Juneja LR. The effects of L-theanine (Suntheanine<sup>®</sup>) on objective sleep quality in boys with attention deficit hyperactivity disorder (ADHD): a randomized, double-blind, placebo-controlled clinical trial. Alternative Medicine Review. 2011 Dec;16(4):348-54.

<sup>14</sup>Lancel M. The GABA(A) agonist THIP increases non-REM sleep and enhances non-REM sleep-specific delta activity in the rat during the dark period. *Sleep*. 1997 Dec;20(12):1099-104.

<sup>15</sup>Steiger A, Antonijevic IA, Bohlhalter S, Frieboes RM, Friess E, Murck H. Effects of hormones on sleep. *Hormone Research*. 1998;49(3-4):125-30.

<sup>16</sup>Shell W, Bullias D, Charuvastra E, May LA, Silver DS. A randomized, placebo-controlled trial of an amino acid preparation on timing and quality of sleep. American Journal of Therapeutics. 2010 Mar-Apr;17(2):133-9.

\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

Serving Healthcare Practitioners for Over 25 Years