



Specification Sheet

Melatonin Powder

Melatonin is a naturally occurring chemical entity present in vertebrates & in many plants. In humans, Melatonin is produced primarily by the pineal gland that projects from the diencephalons into the third ventricle of the brain. Melatonin is biosynthesized from the amino acid L-tryptophan via four enzymatic reactions. The rate limiting step in the biosynthetic pathway is catalyzed by the enzyme serotonin N-acetyltransferase that acetylates the primary amine of serotonin. Melatonin serves as a biochemical switch to signal the body that it is nighttime, or no longer daytime. Its role as a chronobiotic, an agent capable of establishing and maintaining circadian rhythms, is undisputed and a large body data suggests that a pharmacologic level of Melatonin may also have a permissive or mild hypnotic effect.*

Possible claims: Dietary supplement necessary for a restful sleep*

Actives: Amino acid L-tryptophan. **Source:** China & Europe

Appearance	Off white \leq 150 TM009-03
Identity	Spectrum conforms to Ref-TM005-04
Mesh size	100% through 80 mesh
Loss on drying	<3%
Heavy Metals	<10ppm
Pesticides	<10ppb
Packaging	5-25 kg drums
<u>Micobiological</u>	
Total Plate Count	<1000 cfu/g
Yeast & Mold	<100 cfu/g
E Coli	Neg
Salmonella	Neg
Staph Aureus	Neg
<u>Assay:</u>	
HPLC vs. Ref Std	98% to 102%
HPLC area %	99% Minimum
Impurities	Total 1% Maximum, Individual 0.5% Maximum
Sulphated Ash	\leq0.1%
<u>Residual Solvents:</u>	
Ethyl Acetate	\leq0.3%
Acetic Acid	\leq0.3%

Storage & Handling

Store in a cool, & dry area. All containers should be kept tightly sealed, & protected from contamination. It has 2 yr shelf life in proper storage.

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

5753-G Santa Ana Cyn Rd # 4050 Anaheim Hills, CA 92807-3296
Tel: 714-223 0647 Fax: 714-223 0646 E-mail: info@nature4science.com
www.nature4science.com