

TECHNICAL DATA SHEET

Melatonin

USP

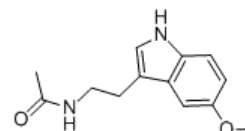
Chemical Properties

This product conforms to USP current version requirements.

CAS: 73-31-4

Chemical Formula: C₁₃H₁₆N₂O₂

Molecular Weight: 232.28



Description

Melatonin is a hormone that regulates sleep-wake cycles. It is primarily released by the pineal gland. As a supplement, it is often used for the short-term treatment of trouble sleeping such as from jet lag or shift work.

Solubility

Slightly soluble in water, soluble in acetone, ethyl acetate and methanol.

Specification

Item	Specification	Test Method
Appearance	White to off-white crystalline powder	Visual
Identification		
Infrared absorption	Positive	USP
Ultraviolet absorption	Positive	USP
HPLC identification test	Positive	USP
Assay	98.5%~101.5%	USP
Chloride and Sulfate	Max 0.02%	USP
Loss on drying	Max 1.0%	USP
Residue on ignition	Max 0.1%	USP
Lead(Pb)	Max 1.0ppm	USP
Arsenic(As)	Max 1.0ppm	USP
Mercury(Hg)	Max 0.1ppm	USP
Cadmium(Cd)	Max 1.0ppm	USP
Impurities		
Individual Impurity	Max 0.1%	USP
Total Impurities	Max 1.0%	USP
Residual solvent		
Ethanol	Max 3000ppm	USP
Total Plate Count	Max 1,000cfu/g	USP
Total Yeast & Mold	Max 100cfu/g	USP
<i>E. Coli</i>	Negative	USP
<i>Salmonella</i>	Negative	USP

Staphylococcus Aureus

Negative

USP

Ingredients

Pure melatonin

Labeling

In the United States and the European Union: Melatonin

Functions

- 1). Melatonin powder has strong antioxidant effects;
- 2). Melatonin powder can effectively improve sleep quality;
- 3). Melatonin powder can improve the functional status of the whole body;
- 4). Melatonin powder has the treatment of glaucoma;
- 5). Melatonin powder can improve human immunity, prevent depression, Alzheimer's syndrome and cataracts;
- 6). Melatonin powder can increase the body's immune system and enhance physical fitness.

Applications

- 1). Applied in cosmetics industry, melatonin powder has the good skin whitening effect;
- 2). Applied in pharmaceutical field, melatonin powder can be used as raw materials;
- 3). Applied in health product field, melatonin powder can be used as raw materials to enhance immunity and treat insomnia.

Safety

This product is safe for the intended use. Avoid ingestion, inhalation of dust or direct contact by applying suitable protective measures and personal hygiene. See Material Safety Data Sheet for full safety information.

Handling recommendations

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible.

Packaging, Storage & Shelf Life

Package	25kg/drum; or according to customers' requirements.
Storage	Preserve in tight containers, protected from light.
Shelf Life	2 years if sealed and stored properly.