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Section 1: Product description

Product Name: Melatonin
 Status: Crystalline Powder
 Colour: White or Off-white

Section 2: Main components

Component	Content (%)	CAS No.	EC No.
melatonin	≥99.0%	73-31-4	3472

Section 3: Product summary and purpose

Summary: Melatonin is one of the hormones secreted by the pineal gland of the brain. Melatonin belongs to indole heterocyclic compounds, and also becomes pineal hormone, melatonin and melatonin. After melatonin is synthesized, it is stored in the pineal gland, and the sympathetic nerve excitation innervates the pineal gland cells to release melatonin. In addition, melatonin has strong neuroendocrine immune regulatory activity and free radical scavenging antioxidant ability, which may become a new antiviral treatment method and approach.

Purpose: Raw materials of health care products, API

Section 4: Physical and chemical properties

Boiling point (101.3KPa): $459.8 \pm 55.0^{\circ}\text{C}$

Melting point: $116-120^{\circ}\text{C}$

Molecular formula: $\text{C}_{13}\text{H}_{16}\text{N}_2\text{O}_2$

Molecular weight: 232.278

Section 5: Analysis of physical and chemical parameters

Items	Specification	Method
Loss on drying	≤0.5%	USP<731>
Heavy metals	≤10ppm	CP2020<0821>
Pb	≤2.0ppm	GB5009.12-2017 Method 2
As	≤1.0ppm	GB5009.11-2014 Article 1 Method 1
Cd	≤1.0ppm	GB5009.15-2014
Hg	≤0.1ppm	GB5009.17-2021 chapter 1 Method 1



Residual on ignition	≤0.1%	USP <281>
Total impurities	≤0.5%	USP NF 43
Individual impurities	≤0.1%	USP NF 43
Chloride	≤0.02%	USP NF 43
Residual solvents	≤1000ppm	CP2020<0861>

Section 6: Handling and storage

- Precautions for safe handling:** Operators must be professionally trained and must strictly follow operating instructions;
The operation and disposal shall be carried out in the place with local ventilation or comprehensive ventilation and ventilation facilities;
Wear safety goggles, protective gloves and dust masks; Avoid contact with eyes and inhalation of dust;
Keep away from fire and heat sources. Smoking is strictly prohibited in the workplace;
If you need to be canned, you should control the flow rate and have a grounding device to prevent the accumulation of static electricity;
Separate from oxidants chemicals; disinfectants or drugs. Mixed storage is not allowed;
Handle with care to prevent package or container breakage;
Wash hands after use and prohibit the intake of food in the workplace;
Equipped with the corresponding variety and quantity of fire-fighting equipment and leakage emergency treatment equipment.
- Storage conditions:** Store in a flat, cool, ventilated and dry warehouse;
Separate from oxidants chemicals; mixed storage is not allowed;
Keep the container sealed;
Keep from fire and heat;
The storage area should be equipped with emergency leakage treatment equipment and appropriate shelter materials;
Valid storage period is 2 years.

Section 7: Disposal considerations

- Waste chemicals:** Waste generation should be avoided or minimized;
Surplus products and unrecyclable products should be disposed of by licensed waste disposal contractors.
- Contaminated packaging:** Return containers to the manufacturer or dispose the container in accordance with national and local regulations.
- Discarded notices:** Dispose according to national and local regulations;
The disposal personnel shall wear safety goggles, protective gloves and dust masks;
Avoid contact with eyes and inhalation of dust.

Section 8: Transport information

- Mode of** This product is not used for transporting dangerous goods, pack as instructed by the



transportation: manufacturer;

Leakage and breakage shall be prevented during transportation;

Transport vehicles should be equipped with enough amount of proper fire-fighting equipment and equipment for emergency leakage control;

The exhaust pipe of the vehicle carrying the goods must be equipped with fire retardant;

Use non-sparking mechanical equipment and tools to handle this produce;

It is better to transport in the morning and evening in summer;

Prevent overexposure to sunlight, rain and high temperature during transport;

Keep from fire, heat and high temperature areas during stopovers;

Dangerous signs and announcements shall be posted on the means of transport in accordance with the relevant transport requirements.