XI'AN LAND NUTRA CO.,LTD
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Yanta District, Xi'an City, Shaanxi Province,China

MATERIAL SAFETY DATA SHEET

1: Product Identification

Product Name: Melatonin powder

CAS Number: 73-31-4

Molecular Formula: $C_{13}H_{16}N_2O_2$

Molecular Weight: 232.28 grams per mole.

Recommended Use: Dietary supplement ingredient

Manufacturer: XI'AN LAND NUTRA CO.,LTD

2: Hazard Identification

GHS Classification: According to available data, the substance is not classified as hazardous under GHS criteria.

GHS Pictograms: None.

Signal Word: None.

Hazard Statements: None.

Precautionary Statements:

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Other Hazards:

Dust may form explosive mixtures in air.

May cause mild mechanical irritation to eyes and respiratory system upon exposure to dust.

Not expected to present significant health hazards under normal conditions of use and handling.Section

3: Composition and Ingredient Information

Component	CAS No.	Concentration	EC No.	Classification
Melatonin (Pure Substance)	73-31-4	100%	200-797-7	Not classified as hazardous

4: First Aid Measures

General Advice:
If unsure or symptoms persist, seek medical advice. Show this safety data sheet to the doctor in attendance.

Inhalation:
Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Seek medical attention.

Skin Contact:
Wash off with soap and plenty of water. If irritation develops, get medical advice.

Eye Contact:
Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, seek medical attention.

Ingestion:
Rinse mouth. Do NOT induce vomiting. Give one or two glasses of water to drink. Seek immediate medical advice.

Notes to Physician:
Symptomatic and supportive treatment. Consider potential interactions with CNS depressants, anticoagulants, and immunosuppressants.

5: Fire Fighting Measures

Suitable Extinguishing Media:

Carbon dioxide, dry chemical powder, foam

Hazardous Decomposition Products:

Nitrogen oxides

Special Protective Equipment:

Self-contained breathing apparatus recommended

6: Accidental Release Measures

Personal Precautions:

Avoid dust generation

Environmental Precautions:

Prevent material from entering drainage systems

Methods for Containment and Cleanup:

Sweep up or vacuum with an explosion-proof vacuum cleaner. Place in a suitable closed container for disposal. Avoid raising dust.

7: Handling and Storage

Handling: Avoid unnecessary dust exposure

Storage Conditions: Store in a cool, dry place, protected from light

Section 8: Exposure Control and Personal Protection

Engineering Controls:

Adequate ventilation

Personal Protective Equipment:

Protective gloves, safety glasses, dust mask when necessary

9: Physical and Chemical Properties

Property	Specification	Test Method / Remarks
Appearance	White to off-white crystalline powder	Visual
Odor	Odorless or with a faint characteristic odor	Organoleptic
Melting Point	116 - 118 °C	USP <741>
Solubility	Very slightly soluble in water; soluble in ethanol, DMSO	-
pH (saturated solution)	~6.5	-
Partition Coefficient (log Pow)	~1.6 (estimated)	-
Loss on Drying	≤ 0.5%	USP <731>

10: Stability and Reactivity

Chemical Stability:
Stable under recommended storage conditions.

Conditions to Avoid:
High temperatures, direct sunlight, strong oxidizing agents.

Hazardous Decomposition Products:
Carbon monoxide, carbon dioxide, nitrogen oxides (NOx) upon combustion.

Possibility of Hazardous Reactions:
Hazardous polymerization will not occur.

11: Toxicological Information

Acute Toxicity (Oral, Rat):
LD_{50} > 2000 mg/kg (Practically non-toxic). [Verify with specific batch data].
Skin Irritation:
Not expected to be irritating.
Eye Irritation:
Dust may cause mild mechanical irritation.
Sensitization:
No information available.

Chronic Toxicity / Carcinogenicity:
Not classified as a carcinogen by IARC, NTP, or OSHA.

Reproductive Toxicity:
No data available. Handle with caution.

12: Ecological Information

Ecotoxicity:

Fish (LC_{50}, 96h): > 100 mg/L (Low toxicity) [Example].
Daphnia (EC_{50}, 48h): > 100 mg/L (Low toxicity) [Example].
Algae (EC_{50}, 72h): > 100 mg/L (Low toxicity) [Example].
Persistence and Degradability: Readily biodegradable.
Bioaccumulative Potential: Low (estimated log Pow < 3).

13: Disposal Considerations

Waste Disposal: Dispose of contents/container in accordance with all applicable local, regional, national, and international regulations. Do not dispose with household waste. Consult a licensed professional waste disposal service.

14: Transport Information

Transport Status: Not regulated as dangerous goods

Section 15: Regulatory Information

US (FDA): Generally Recognized As Safe (GRAS) for specific food uses Regulated as a dietary supplement ingredient (DSHEA).
EU: Approved as a novel food (Commission Implementing Regulation (EU) 2017/2470) for specific applications and populations.
Other:
REACH: Registered for >1 tonne/year.
DSL (Canada): Listed.
AICS (Australia): Listed.
Certifications: Halal and Kosher certificates are available upon request.

Section 16: Other Information

Disclaimer: The information contained herein is based on the present state of our knowledge and is intended to describe the product for safe handling and use. It is not a guarantee of properties. The user is responsible for determining the suitability of this information for their particular purposes and for complying with all applicable laws and regulations.
Prepared By: Quality Control / Regulatory Affairs Department
Reviewed By: Safety Officer
Approved By: Quality Manager