



### Matcha D5 Safety Data Sheet (MSDS)

According to the standards: Globally Harmonized System of Classification and Labelling of Chemicals (GHS), China GB/T 16483-2008

Product Identification: Matcha D5 (D5 refers to the model/batch/specific process identifier, such as particle size and tea polyphenol content grade)

CAS number: Green tea extract 84650-60-2

Usage: Food ingredients, health supplement ingredients, cosmetic additives (e.g., face masks, personal care products)

1. Product Name: Matcha D5
2. Recommended use: production and processing of food, health products, and cosmetics
3. Restriction of use: Not for direct intravenous injection or other medical purposes
4. Company Information: Xi'an Best Biotechnology Co., Ltd.

#### 2、 Risk Summary

1. Hazard category: Non-hazardous chemical
2. Routes of entry: inhalation, ingestion, skin contact
3. Health hazards: -Inhaling dust may cause mild irritation of the respiratory tract, manifesting as cough and dry throat-Prolonged skin contact may lead to mild itching due to dryness-Contains natural caffeine; excessive intake may result in excitement, insomnia, and palpitations (in sensitive individuals)
4. Environmental hazard: Low toxicity to aquatic organisms; large-scale disposal may cause slight eutrophication of water bodies.
5. Explosive hazard: This product is a non-flammable solid powder and poses no explosion risk when exposed to open flames or high temperatures.

#### 3、 Ingredients / Composition Information

Table Body Tr Table Contents Component (%) Content Range (%) Hazard Description (%)		
Tea Polyphenols (%)	10%-30% (per D5 specification)	(%)
Non-hazardous, natural antioxidant (%)	Caffeine (%)	1%-3% (%) Excessive intake may cause nervous excitement in sensitive individuals (%)
(%) Non-hazardous (%)	Amino Acids (Theanine, etc.) (%)	3%-8% (%)
Non-hazardous (%)	Heavy Metals (Lead, Arsenic, Mercury) (%)	≤0.1 mg/kg (Lead);

≤0.05 mg/kg (Arsenic) (%) Complies with national standard limits, no health risks (%)

#### 4、 emergency treatment

Routes of Exposure	First Aid Methods
Skin Contact	Remove contaminated clothing and rinse skin with running water for 10-15 minutes. For itching, apply a mild emollient
Eye Contact	Immediately lift the eyelid and rinse with large amounts of running water or saline solution for 15 minutes. Seek medical attention if discomfort occurs
Inhalation	Quickly move to fresh air and keep the airway clear. If coughing worsens, seek medical attention
Ingestion	Drink plenty of warm water and induce vomiting (only for conscious individuals). Seek medical attention if palpitations occur due to overdose. Symptomatic treatment

#### 5、 fire protection

1. Personal protection: Wear a dust mask and protective gloves to avoid dust exposure.
2. Leakage handling: Collect the spilled powder into a sealed container using a clean shovel and transfer to a safe area; wipe residual materials with a damp cloth to prevent dust dispersion.
3. Precautions: Do not discharge the leaked substance into sewers, rivers, or other water bodies.

#### 6、 leakage emergency response

1. Personal protection: Wear a dust mask and protective gloves to avoid dust exposure.
2. Leakage handling: Collect the spilled powder into a sealed container using a clean shovel and transfer to a safe area; wipe residual materials with a damp cloth to prevent dust dispersion.
3. Precautions: Do not discharge the leaked substance into sewers, rivers, or other water bodies.

#### VII. Handling, Disposal, and Storage

Precautions for Handling	Storage Precautions
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1. Maintain ventilation in the operating environment
2. Avoid dust generation and wash hands promptly after handling
3. Do not store with strong oxidizers
1. Store in a tightly sealed container in a cool, dry place with temperature  $\leq 25^{\circ}\text{C}$  and relative humidity  $\leq 60\%$
2. Keep away from direct sunlight to prevent chlorophyll decomposition
3. Store separately from oxidizers and acidic substances

#### VIII. Exposure Control/Personal Protection

1. Process Control: Install local ventilation devices in the operating room to reduce dust concentration
2. Respiratory protection: Wear KN95 dust masks during high-volume operations
3. Eye protection: Wear ordinary goggles to prevent dust from entering the eyes.
4. Skin protection: Wear nitrile protective gloves and workwear
5. Hand protection: Clean hands promptly with hand sanitizer after operation to avoid residue.

#### IX. Physicochemical Properties

Table Body Row TD Item TD Indicator TD Appearance TD Uniform emerald green powder, non-agglomerated TD Odor TD Possesses the characteristic aroma of matcha TD Solubility TD Slightly soluble in cold water, easily dispersible in hot water and ethanol aqueous solution TD pH value (1% aqueous solution) TD 5.5-6.5 TD Particle size (according to D5 specification) TD If D5 represents 5 μm: particle size ≤ 5 μm TD Stability TD Stabilized for 12 months when stored sealed at room temperature TD 10、 stability and reactivity

1. Stability: Stable under normal temperature and pressure
  2. Precautions for exposure: direct strong light, high-temperature and high-humidity environment
  3. Incompatible compounds: strong oxidizing agents (e.g., potassium permanganate, hydrogen peroxide)
  4. Harm of polymerization: No polymerization
- 11、 Toxicology information

Table: Acute oral toxicity (LD<sub>50</sub> >5000 mg/kg in rats, classified as practically non-toxic); Skin irritation (no irritation in rabbit skin tests); Eye irritation (no irritation in rabbit eye tests); Sensitization (no skin sensitization).

12、 ecological information

1. Ecotoxicity: Low toxicity to fish and algae, LC<sub>50</sub> >100 mg/L
2. Biodegradability: Naturally biodegradable
3. Waste disposal: treated as general solid waste, in compliance with local environmental regulations

13、 disposal of waste

1. Product Disposal: Untreated matcha D5 can be used as a feed additive; contaminated products must be sealed and disposed of by qualified waste treatment facilities.
2. Packaging waste: cleaned and recycled, or disposed of as plastic waste

14、 Regulatory information

1. Complies with China's National Food Safety Standard for the Use of Food Additives (GB 2760)
2. Complies with China's "Technical Specifications for Cosmetic Safety" (2015 Edition)
3. Exports must comply with the relevant standards of the destination country (e.g., EU EFSA, US FDA requirements)

15、 Other information

1. This MSDS is valid for 2 years from the date of preparation.
2. Note: Specific parameters of D5 should be supplemented according to the manufacturer's process (e.g., particle size, tea polyphenol content).

