Safety Data Sheet

PINHONBIO® Hydroxypropyl Beta Cyclodextrin

General powder grade | Version 1.0 | 23 Oct 2026

1 Identification

Product identifier	PINHONBIO® Hydroxypropyl Beta Cyclodextrin
INCI / CAS	HYDROXYPROPYL CYCLODEXTRIN / 128446-35-5
Synonyms	Hydroxypropyl betadex; (2-hydroxypropyl)-β-cyclodextrin; HPBCD
Recommended use	Complexing and solubilizing raw material for professional formulation and development.
Supplier	Shaanxi Pinhon Biotechnology Co., Ltd.
Address	Room 704, Unit 2, Building 1, I-Duhui, No. 11 Tangyan South Road, Yanta District, Xi'an, Shaanxi, China
Contact	Albert Zhao | +86 173 0298 1616 | info@pinhoningredients.com | pinhoningredients.com
Emergency contact	Albert Zhao | +86 173 0298 1616 | 09:00–18:00 China Standard Time (UTC+8), Chinese/English. Business-hours contact; for urgent medical help contact local emergency services or a poison centre.

2 Hazard identification

GHS classification: Not classified as hazardous on the basis of the available substance information.

Label elements: No GHS hazard pictogram, signal word or hazard statement is required.

Other hazards: Dust can cause mechanical discomfort to eyes and airways. Organic powder can burn when exposed to fire; avoid airborne dust clouds and ignition sources during bulk processing. Product-specific dust explosibility has not been measured.

Good handling practice: Use ventilation, minimize dust release, avoid eye contact and wash hands after handling. Keep the container closed and dry.

3 Composition and information on ingredients

Substance identity	CAS / EC	Material description
Hydroxypropyl beta cyclodextrin	128446-35-5 / 420-920-1	Hydroxypropylated beta-cyclodextrin powder

The material is a substitution-distributed cyclodextrin derivative. Hydroxypropoxy content is controlled at 19.6–26.3%; this value measures substituent content, not the concentration of the ingredient in a carrier blend. Molecular weight depends on substitution. Water and related-substance limits are given in the product specification.

Residual propylene oxide is limited to ≤0.0001% (≤1 ppm). It is a controlled process residue, not an intentionally added ingredient.

4 First aid measures

Inhalation	Move to fresh air. Rest and seek medical advice if coughing, breathing discomfort or other symptoms continue. Trained personnel should provide emergency breathing assistance if needed.
Skin contact	Wash with water and soap. Remove contaminated clothing. Obtain medical advice if irritation persists.
Eye contact	Rinse gently with clean water for several minutes, including under the eyelids. Remove contact lenses if easy to do. Continue rinsing and seek medical attention if discomfort, redness or visual disturbance persists.
Ingestion	Rinse the mouth. Do not induce vomiting. Give nothing by mouth to an unconscious person. Seek medical advice if unwell or following a significant accidental ingestion.
Symptoms and treatment	Dust may cause temporary eye or airway irritation. Ingestion may cause gastrointestinal discomfort. Treat according to symptoms and show this SDS to medical personnel.

5 Firefighting measures

Use water spray, foam, dry chemical or carbon dioxide as appropriate for the surrounding fire. Avoid forceful jets that disperse powder. Burning or overheating can produce carbon monoxide, carbon dioxide and irritating fumes. Firefighters should use self-contained breathing apparatus and full protective clothing. Keep contaminated runoff out of drains.

6 Accidental release measures

Keep unnecessary personnel away and ventilate the area. Wear eye protection and suitable gloves. Collect powder carefully using dust-controlled mechanical methods or suitable vacuum equipment, then place in closed, labelled containers. Avoid compressed air and uncontrolled dry sweeping. Prevent bulk material or concentrated cleaning solutions from entering drains or waterways.

7 Handling and storage

Use local extraction for operations that generate dust. Avoid creating dust clouds, rubbing eyes with contaminated hands or leaving powder on work surfaces. Wash hands before breaks. Use appropriate bonding, grounding and ignition controls where the process dust assessment requires them.

Store protected from light in tightly sealed packaging in a cool, dry, ventilated area. Protect from moisture and excessive heat. Keep away from strong oxidizing agents. Shelf life: 36 months in original unopened packaging under recommended storage conditions.

8 Exposure controls and personal protection

Exposure limits: No substance-specific occupational exposure limit is identified in the cited SDS. Apply local airborne-dust limits and assess actual process exposure.

Provide ventilation and an accessible eyewash. Wear safety glasses or goggles, suitable work gloves and protective clothing for bulk powder handling. If extraction does not adequately control airborne dust, use an approved particulate respirator selected for the exposure and task. Keep work clothing clean and prevent transfer of powder to food or personal items.

9 Physical and chemical properties

Physical state / appearance	White or almost white amorphous or crystalline powder (product specification)
Odour / odour threshold	Not specified for this grade / not determined
pH	5.0–7.5, using the prescribed CP 2025 preparation
Water solubility	Highly soluble
Other solubility	Highly soluble in propylene glycol; freely soluble in methanol or ethanol; practically insoluble in acetone or chloroform (product specification)
Melting / freezing / softening behaviour	Not established for this substitution-distributed grade
Boiling point / decomposition temperature	Not determined
Flammability	Organic solid can burn; no product-specific flammability test supplied
Flash point / autoignition temperature	Not determined
Explosion limits / dust explosion parameters	Not determined
Vapour pressure / relative vapour density	Not determined / not applicable to the supplied solid
Density / relative density	Not determined
Partition coefficient (n-octanol/water)	Not established for this grade
Kinematic viscosity	Not applicable to the supplied powder
Particle characteristics	Powder; size distribution not specified

10 Stability and reactivity

Stable under recommended storage conditions. Avoid strong oxidizers, excessive heat, prolonged strong light, moisture ingress and unnecessary dust dispersion. No hazardous polymerization is expected in normal use. Thermal decomposition or fire may release carbon oxides and irritating smoke.

11 Toxicological information

Not classified as hazardous using the available substance information. Dust may temporarily irritate eyes and airways; prolonged skin contact may cause discomfort. Accidental ingestion of a large quantity may cause gastrointestinal symptoms.

Published reference data include inhalation LC50 (rat, 4 h) >2.95 mg/L. Product-specific oral or dermal LD50 values are not available. This SDS does not establish safety for direct consumption, injection or a particular route of pharmaceutical administration.

Product-specific data are not available for sensitization, mutagenicity, carcinogenicity, reproductive toxicity, specific target-organ toxicity or endocrine-disrupting effects. No liquid aspiration hazard applies to the supplied solid.

12 Ecological information

No product-specific aquatic LC50/EC50 values or persistence, biodegradation, bioaccumulation, PBT/vPvB or endocrine-disruption assessment are available. The material dissolves in water and can move with water after release. Prevent uncontrolled discharge of powder or concentrated solutions.

13 Disposal considerations

Recover clean material where appropriate. Place unusable powder and contaminated cleanup material in closed, labelled containers for an authorized waste handler. Determine the applicable waste category from the material and its contaminants. Do not dispose of bulk powder or concentrated solutions through drains. Empty packaging should be cleaned or disposed of according to local requirements.

14 Transport information

Transport status	Non-dangerous goods. Not regulated under IATA, IMDG and US DOT for the supplied powder.
UN number	Not applicable
UN proper shipping name	Not applicable
Transport hazard class / packing group	Not applicable / not applicable
Marine pollutant	No
Precautions	Keep packaging tightly closed, dry and protected from strong light, heat and damage. Avoid contamination and prevent powder leakage.
Maritime transport in bulk	Not applicable; supplied as packaged powder.

15 Regulatory information

This sheet uses the 16-section GHS format. Product quality specifications refer to CP 2025 as stated in the PINHONBIO COA. Pharmacopoeial specifications and chemical hazard classification serve different purposes.

INCI name: HYDROXYPROPYL CYCLODEXTRIN. EC identifier: 420-920-1. The intended application, importer obligations and finished-product claims must meet the requirements of the destination market. Sterility and bacterial-endotoxin specifications are not included in the supplied grade standard.

16 Other information

Version 1.0 | Issue date: 23 Oct 2026. General English edition. The technical specification is based on the supplied PINHONBIO COA; no batch-specific test results are included.

Abbreviations: CP, Chinese Pharmacopoeia; GHS, Globally Harmonized System; INCI, International Nomenclature of Cosmetic Ingredients; LC50, median lethal concentration; PBT/vPvB, persistent, bioaccumulative and toxic/very persistent and very bioaccumulative; IATA, International Air Transport Association; IMDG, International Maritime Dangerous Goods Code.

Reference sources consulted 23 Oct 2026:

[1] PINHONBIO Hydroxypropyl Beta Cyclodextrin COA: CP 2025 product limits, packaging and shelf life.

[2] Fisher Scientific, Hydroxypropyl-beta-cyclodextrin AC29756 SDS, revision 5, 19 Dec 2025: safety and transport. https://www.fishersci.com/store/msds?countryCode=US&language=en&partNumber=AC297561000&productDescription=HYDROXYPROPYL+BETHA+CYCLO+100G&vendorId=VN00032119

[3] Sigma-Aldrich, H107 SDS, version 6.9, 30 Apr 2025: GHS classification. https://www.sigmaaldrich.com/IN/en/sds/sigma/h107

[4] Sigma-Aldrich H107 product information: identity and substitution-dependent molecular weight. https://b2b.sigmaaldrich.com/US/en/product/sigma/h107

[5] Roquette, KLEPTOSE HPB technical information: complexation and aqueous solubility. https://www.roquette.com/health-pharma/pharmaceutical-product-catalog/kleptose-hpb-oral-hydroxypropylbetadex

[6] European Commission ingredient-name glossary, entry HYDROXYPROPYL CYCLODEXTRIN. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019D0701

The information supports safe handling of the identified raw material. It does not replace assessment of the actual process, formulated product or intended route of use.