

Berberine Extract Procurement Selection Analysis Report from HiSiaddi

Target Customers: US Dietary Supplement Brands, EU Food Supplement Manufacturers, Southeast Asian Import Distributors, Cross-border Private Brands

Core Selection Logic: Prioritize market regulations → Screen raw material sources → Match purity grade → Control hidden compliance risks → Balance full-link landed costs

Main Product: Berberine Hydrochloride, CAS No.: 633-65-8

Part 1: Comparative Analysis of Three Raw Material Substrates (First Screening Threshold for Overseas Procurement)

Overseas customs and third-party laboratories focus on raw material source verification; Different substrates directly determine customs clearance success rate, retest cost and terminal selling price

表格

Raw Material Substrate	Core Indicators	Applicable Overseas Markets	Compliance Risk	Comprehensive Selection Rating	Landed Cost Difference
Coptis chinensis Extract	High berberine purity, low pesticide residues & heavy metals, low impurity, low palmatine/jatrorrhizine, complete plant traceability	High-end oral capsules and tablets for US, EU, Australia dietary supplements	Extremely low, complies with FDA & EU Food Supplement standards, rare customs random inspection detention	★★★★★ Export First Choice	Benchmark Price (Highest Cost)
Phellodendron chinense Bark Extract	Medium alkaloid content, fluctuating pesticide residues & heavy metals,	Low-end Southeast Asian powder products,	Medium, EU REACH & US import easily	★★★ Limited to Low-End Channels	20%~28% Lower than Coptis chinensis

Raw Material Substrate	Core Indicators	Applicable Overseas Markets	Compliance Risk	Comprehensive Selection Rating	Landed Cost Difference
	high impurity content	veterinary raw materials; Only low-cost bulk basic products for Europe & US	trigger secondary heavy metal retest, increasing inspection cost	Extremely High, European and American customs random inspection leads to 100% goods detention and destruction, huge cargo loss & fines	
Berberis Root Extract (Three-Thorn Root)	Lowest raw material cost, Pb & As heavy metals easily exceed standard, high impurities	external raw materials; Strictly forbidden for oral dietary export	random inspection leads to 100% goods detention and destruction, huge cargo loss & fines	★ Exclude Directly for All Overseas Oral Dietary Products	Over 40% Lower than Coptis chinensis

Selection Conclusion Copy for Overseas Customers

1. For North American, EU supermarket, online brands and high-end oral dietary supplements: Mandatory selection of 98% refined grade extracted from Coptis chinensis
2. For Southeast Asian low-price powder products and veterinary additives: Compliant 97% Phellodendron chinense grade is acceptable

3. Berberis root extract is not recommended for any oral dietary export;
Short-term low procurement price will lead to devastating customs clearance losses

Part 2: Purity Grade Selection (97% vs 98%, Mandatory Distinction for Overseas Markets)

Industry standards all adopt HPLC detection based on anhydrous content, the second core procurement screening point for overseas customers

2.1 97% Crude Berberine Extract

- Indicator Boundary: Total impurities $\leq 2.0\%$, single palmatine/jatrorrhizine $\leq 1.0\%$
- Advantages: Low FOB unit procurement price, suitable for low-cost bulk powder and animal feed
- Overseas Disadvantages:
 - ① Large fluctuation of content in European and American third-party retests, unqualified finished product content uniformity
 - ② High impurities cause yellowing and discoloration of tablets and capsules during long-term storage, leading to numerous terminal customer complaints
 - ③ Strict impurity control in EU food supplements; Some countries directly restrict 97% grade for oral dietary use
- Applicable Markets: Low-end Southeast Asian channels, external skin care raw materials, veterinary products

2.2 98% Refined Berberine Extract (Mainstream Export Selection)

- Indicator Boundary: Total impurities $\leq 1.2\%$, single palmatine/jatrorrhizine $\leq 0.5\%$, double recrystallization purification
- Overseas Advantages:
 - ① Stable content RSD $< 0.8\%$, meets US DSHEA and EU food supplement label content marking requirements
 - ② Low impurities, no obvious yellowing within 18~24 months finished product shelf life
 - ③ Heavy metals and pesticide residues pass overseas third-party retest easily, retest cost greatly reduced
 - ④ Full set of pharmacopoeia-grade English COA and USP comparison spectra available for zero-resistance customs clearance
- Applicable Markets: All oral dietary supplements in US, Canada, EU, UK, Australia

Price Difference Reference

Under the same raw material source, FOB unit price of 98% grade is 6~10 USD/kg higher than 97% grade, but it can save 10~18 USD/kg of hidden costs including overseas retest, rework and return & exchange; More cost-effective for long-term procurement

Part 3: Targeted Selection Plans by Overseas Target Market (Accurate Matching by Region)

Plan 1: US / Canada Market (FDA DSHEA System)

Mandatory Selection Requirements

1. Raw Material: Extracted from *Coptis chinensis*; Reject *Phellodendron chinensis* and *Berberis* root
2. Purity: Minimum 98% HPLC refined grade
3. Quality Control Thresholds:
 - Heavy Metals: Pb≤8ppm, As≤1.5ppm, Cd≤0.4ppm, Hg≤0.1ppm
 - Full set of over 200-item CNAS English pesticide residue reports
 - Microorganisms: Total aerobic bacteria <1000CFU/g, no *Salmonella* & *Escherichia coli*
1. Supporting Documents: English COA, TDS, MSDS, Plant Traceability Sheet, Certificate of Origin

Forbidden Selection: 97% crude *Phellodendron chinensis* extract
(Disqualification rate over 40% in FDA importer retest)

Plan 2: EU / UK Market (REACH + Food Supplement Directive)

Mandatory Selection Requirements

1. Substrate: 98% refined *Coptis chinensis* extract with Latin plant name traceability provided
2. Strict Impurity Control: Single palmatine & jatrorrhizine ≤0.5%
3. Additional Compliance:
 - REACH Pre-registration Notification Documents
 - Compliant with EU Pesticide Residue Standard EC 396/2005
 - Residual Solvents meet ICH Q3C

Selection Pitfall Avoidance: *Phellodendron chinensis* extract easily triggers EU border food safety random inspection generating high detention testing fees

Plan 3: Southeast Asia (Malaysia, Thailand, Indonesia, Singapore)

Dual Selection Routes

1. High-End Online Capsules (European & American Standard): 98% refined *Coptis chinensis* extract with full set of English test documents
2. Low-End Offline Powder Products: Compliant 97% *Phellodendron chinensis* grade, apply FORM E Certificate of Origin for tariff reduction

Unified Ban: Berberis root extract forbidden for import into oral food products

Part 4: Selection Distinction by Overseas Finished Product Dosage Form

4.1 Hard Capsules / Sustained-Release Tablets (European & American Hit Dosage Form)

Selection Standard: 98% refined *Coptis chinensis* grade

Reasons: Stable purity, low impurities prevent yellow bleeding, compatible with compound ingredients (Chromium, Curcumin, White Kidney Bean Extract), no precipitation during sustained-release processing

4.2 Compound Meal Replacement Powder, Strip Sachet Beverage Powder

Selection Standard: 98% refined grade, prioritize β -cyclodextrin pre-embedded modified berberine

Overseas Pain Point: Ordinary berberine has extremely bitter taste with low acceptance by European and American consumers; Pre-embedded grade reduces addition of taste masking auxiliary materials and lowers customer manufacturing cost

4.3 Oral Liquid, Drop Dietary Beverages

Mandatory Selection Standard: 98% high-purity grade with low tannin impurities

Crude high-impurity products easily crystallize and precipitate in buffer solutions, leading to full batch scrap loss of overseas liquid finished products

4.4 External Skin Care Antibacterial Raw Materials (No Oral Requirement)

Selection Standard Can Be Relaxed: Compliant 97% *Phellodendron chinensis* grade available for lower cost

Part 5: Four Quality Grade Stratification for Overseas Customer Price Positioning

Grade A: Pharmacopoeia Export Refined Grade (Exclusive for High-End Brands)

Indicators: 98.0%~98.8% *Coptis chinensis* extract, heavy metals far below limit values, full USP/ChP2025 comparison spectra, independent third-party CNAS English test for each batch

Applicable: Amazon Top Brands, Offline Chain Supermarkets, Organic Dietary Lines; Strong premium capacity, no after-sales risks

Grade B: Standard Dietary Export Grade (Mid-Tier Stable Bulk Sales)

Indicators: 98.0%~98.3% *Coptis chinensis* extract, qualified basic heavy metals & pesticide residues, regular English COA

Applicable: Small & Medium Cross-border Brands, Local Small Overseas Health Food Factories, Optimal Cost Performance; Over 95% Pass Rate in Overseas Retests

Grade C: General Phellodendron chinensis Dietary Grade (Exclusive for Low-End Southeast Asia)

Indicators: 97.0%~97.8% Phellodendron chinensis extract, qualified basic microorganisms, no strict separate pesticide residue reports

Applicable: Low-price powder channels, Not recommended for European & American markets

Grade D: Industrial Crude Extract (Strictly Forbidden for Overseas Oral Use)

90%~96% extract from Berberis root or low-grade Phellodendron chinensis, heavy metals close to upper limits, no complete test documents; Only for feed and industrial dye raw materials

Part 6: Critical Risk Screening Checklist for Overseas Procurement Selection (Must Check Before Order Placement)

1. Raw Material Source Certificate: Whether Coptis/Phellodendron purchasing traceability sheet and Latin plant name are provided
2. Test Report Language: Whether full English CNAS reports are available; Chinese reports are not recognized by European and American customs
3. Separate Testing for Impurities: Whether separate numerical data for palmatine and jatrorrhizine are provided; Only marking "total impurities" is unacceptable
4. Actual Test Values of Heavy Metals: Refuse reports only marked "Compliant"; Exact ppm numerical values must be provided
5. Microbiological Items: Whether special testing for pathogenic bacteria (Salmonella, Escherichia coli) is included
6. Supporting Documents: Whether MSDS, TDS, Certificate of Origin and REACH materials are provided free of charge
7. Stability Accelerated Data: Whether 40°C/RH75% 30-day content attenuation test data are provided (for overseas customer finished product filing)

Part 7: Comprehensive Selection Decision Model (Intuitive Comparison Logic for Overseas Customers)

1. If customer focuses on European & American high-end oral dietary capsules:
Priority: Grade A 98% refined Coptis chinensis extract > Cost, Avoid detention, return and brand loss risks
2. If customer sells low-price powder products in Southeast Asia:
Priority: Compliant Grade C 97% Phellodendron chinensis extract, apply FORM E to reduce tariffs and control FOB procurement cost

3. For customer sample testing and new product trial:
First purchase Grade A 98% samples for overseas laboratory retest;
Place bulk orders only after confirmation of compliance
4. Under any circumstances, exclude Berberis root crude extract for oral dietary products

Part 8: Cost Trade-off for Selection (Top Concern of Overseas Customers)

Short-term view: 97% Phellodendron chinensis extract has lower procurement unit price

Long-term comprehensive landed cost (FOB + Sea Freight + Tariff + Overseas Retest + Scrap Loss + After-Sales Compensation):

98% refined Coptis chinensis extract actually has lower comprehensive cost, saving three major hidden expenditures:

1. Overseas third-party retest cost reduced by 40%~60%
2. Eliminate full container goods loss caused by customs detention
3. Reduce channel return compensation triggered by finished product discoloration and unqualified content