

**Hangzhou New Asia International Co., Ltd**


189 FengQi East Road,TSN Plaza 4-706

Hangzhou, Zhejiang, 310020, P.R.China

Tel: 86-571-85815391**Fax:** 86-571-85815449**E-mail:** sales@herbalsextract.com**Website:** www.herbalsextract.com**CERTIFICATE OF ANALYSIS****Rhubarb Root Whole****(Eur. Ph. Grade)**

Lot Number: HK211216-4 Manufacture Date: 2022/01/03 Expiry Date: 2024/01/02

General Information

Other Names	: Rhei radix,Rhei Rhizoma	
Definition	: Rhubarb consists of the whole or cut, dried underground parts of <i>Rheum palmatum</i> L. or of <i>Rheum officinale</i> Baillon or of hybrids of these two species or of a mixture. The underground parts are often divided; the stem and most of the bark with the rootlets are removed.	
Part Used	: Root	
Botanical/Scientific Name	: <i>Rheum palmatum</i> / <i>Rheum officinale</i> L	
GM Status	: Not Genetically modified	
Allergen Status	: Not Allergen	
Cultivated/Wild	: Cultivated	
Country Of Origin	: China	
Harvesting Period	: Spring and Autumn	
Treatment After Harvesting	: Drying	
Sanitising Treatment After Harvesting	: None	
H.S.Code	: 1211.90	

ITEMS	SPECIFICATION	METHOD	TEST RESULTS
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Physical&Chemical Data

Macroscopic/microscopic ID	: The appearance is variable: disc-shaped pieces up to 10 cm in diameter and 1 cm to 5 cm in thickness; cylindrical pieces; oval or planoconvex pieces. The surface has a pinkish tinge and is usually covered with a layer of brownish-yellow powder. It shows, especially after moistening, a reticulum of darker lines. This structure causes the marbled appearance of the drug. The fracture is granular. The transverse section of the rhizome shows a narrow outer zone of radiating brownish-red lines. These medullary rays are crossed perpendicularly by a dark cambial ring. Inside this zone is a ring of small star-spot formations of anomalous vascular bundles. The root shows a more radiate structure.		
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Analytical Quality

Rhein	: $\geq 2.2\%$	HPLC	2.35%
Loss on Drying	: $\leq 12.0\%$	Eur.Ph.	11.20%
Total ash	: $\leq 12.0\%$	Eur.Ph.	4.80%
Ash insoluble in hydrochloric acid	: $\leq 2.0\%$	Eur.Ph.	0.52%

Contaminants

Lead (Pb)	: ≤ 2.0 mg/kg	Eur.Ph.	0.19 mg/kg
Arsenic (As)	: ≤ 2.0 mg/kg	Eur.Ph.	0.059 mg/kg
Cadmium (Cd)	: ≤ 1.0 mg/kg	Eur.Ph.	0.20 mg/kg
Mercury (Hg)	: ≤ 0.1 mg/kg	Eur.Ph.	Negative
Pesticides Residue	: Meet USP Requirements	USP	278 pesticides are less than LOQs

Packing&Storage

: Packed in Carton and two plastic-bags inside. N.W:15kgs
Store in a well-closed container. Away from moisture, light, oxygen.

Shelf life

: 24 months under the conditions above and in its original packaging.

Analytical Laboratory Manager:**Date: 2022.01.10**

王海