SmartHerb
Innovating Botanical Health

Address: No.76-3 Chengnan Road, Huaxi Subdistrict, Changxing County, Huzhou City, Zhejiang Province, 313100, China

Technical Data Sheet

Product Name: PhytoTrust™ Hops Extract 8-PN≥0.1% Xanthohumol≥0.5%

Trade Brand: SmartHerb

Technical Data Sheet			
Botanical Name	Humulus lupulus L.(Hops) Cone Extract	Part	Cones
AC Code	SH03945a	CAS number	53846-50-7 (8-PN); 6754-58-1 (Xanthohumol)
Origin	China	Solvent Used	Water & ethanol
Item	**Standard**		**Analysis Method**
Appearance	Light green to brownish-yellow powder		Visual
Odour & Taste	Characteristic		Organoleptic
Typical Analysis			
Identification	Compliant with standard reference		HPLC/TLC
Assay	8-PN (8-Prenylnaringenin) ≥0.1%; Xanthohumol ≥0.5%		HPLC (external standard)
Ash	≤2.0%		Ph. Eur. 2.4.16
Particle Size	≥95% through 80 mesh		Sieve analysis
Loss on Drying	≤5.0%		Ph. Eur. 2.8.17
Residual solvents			
Ethanol	≤5000 ppm		GC
Pesticide Residue	Complies with (EC) No 396/2005		GC-MS/LC-MS
Non-irradiated (PSL screening, EN 13751)	Negative (PSL <700)		EN 13751 (PSL)
Benzo(a)pyrene	≤10μg/kg		(EU) 2023/915
PAH4	≤50μg/kg		(EU) 2023/915
Heavy metals			
Heavy metals (total)	≤10 ppm		ICP-MS
Lead (Pb)	≤3.0 ppm		ICP-MS
Arsenic (As)	≤2.0 ppm		ICP-MS
Cadmium (Cd)	≤1.0 ppm		ICP-MS
Mercury (Hg)	≤1.0 ppm		ICP-MS
Microorganism			
Total Bacterial Count	<1000 cfu/g		Ph. Eur. 2.6.12
Total Yeasts & Moulds Count	<100 cfu/g		Ph. Eur. 2.6.12
Staphylococcus aureus	Negative		Ph. Eur. 2.6.12
Salmonella	Negative		Ph. Eur. 2.6.13
Package	N.W. 25Kgs/fiber drum and two plastic bags inside.		
Shelf life	2 years when stored properly in the original unopened container		
Storage	Store in a well-closed container at room temperature, protected from light, moisture and pest infestation.		

Note 1: 8-PN (8-prenylnaringenin) occurs naturally in hops. The assay is standardised by HPLC against an external reference standard; CAS 53846-50-7 refers to the naturally occurring (S)-(-)-enantiomer (sophoraflavanone B), while CAS 68682-02-0 refers to the racemic form.

Note 2: Benzo(a)pyrene (10 μg/kg) and PAH4 (50 μg/kg) limits quoted are those of Regulation (EU) 2023/915 applicable to food supplements; for other food applications the limit of the relevant food category applies.

Note 3: The product is non-irradiated. PSL screening according to EN 13751 is negative; a full irradiation statement can be issued on request.

Note 4: Batch-specific COA, HPLC chromatogram, MS/NMR data and SDS are available on request.

INGREDIENTS

An ingredient is defined in Directive 2000/13/EC on labelling:"ingredient means any substance including additives, used in the production or preparation of a foodstuff and still present in the finished product although possibly in a modified form" i.e all raw materials to produce the goods.

Please list all ingredients:

Ingredients/material composition	%	Country of origin
Hops Extract	100%	China

ORIGIN

Country of origin of the product:China			
Is a manufacturing process available	☑YES	☐NO	
Source of the product:	☐Animal ☑Plant ☐Mineral origin ☐Synthetic ☐Biotechnological processing		
please answer the following questions.			
Botanical name	humulus lupulus (hops) cone oil	Geographical origin	China
Part of the plant	Cones	Wild or Cultivated	Cultivated
Harvest method	Manual harvesting	Harvest period	From Spring to Autumn
Is the technical data sheet of the plant raw material available	☑YES ☐NO		
Are there any agents responsible for adverse effects	☐YES ☑NO		
If yes,please precise:			
Please precise the methods of eliminating risk constituents:			

Could you precise the treatments used on the plant harvesting?

Irrigation	Fertilizers	Herbicides	Insecticides	Fungicides	Other
Yes	Yes	Controlled use	Controlled use	Controlled use	None

Could you precise the treatments /transformations after harvest?			
☑Decontaminated plant(treatment used:		☐Undecontaminated plant	
☑Washing	☑Drying	☐Natural drying:	☑Artificial drying
Other:			
If mineral origin, please specify species			
If synthetic, please specify species			

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GENETICALLY MODIFIED ORGANISMS-GMO

According to EU regulations EC/1829/2003 &EC/1830/2003

According to the EUregulations concerning the traceability and labelling of Genetically Modified Organisms(GMO),and the traceability of food products produced from GMO, we confirm that the product:		
Contains ingredient(s)from Maize and/or Soya origin	☐YES	☑NO
Contains no material which contains,consists of or is produced from authorized GMOs in proportion higher than 0,9%.This presence is adventitious or technically unavoidable	☑YES	☐NO
is GMO or contains or consists of GMOs	☐YES	☑NO
is produced from GMOs or contains ingredients produced from GMOs	☐YES	☑NO
Contains ingredient(s)from other potential GMO-risk raw material(s)(rice,beet cotton ...)	☐YES	☑NO
If Yes,please specify: o ingredient: o vegetable origin: o geographic origin:		
Contains no material which contains,consists of or is produced from evaluated GMOs in proportion higher than 0,5%.This presence is adventitious or technically unavoidable	☑YES	☐NO
For information about processing aids, is produced or contains ingredient(s)produced with GMOs or Genetically Modified Microorganisms processing aids (bacteria,yeast...or derived from GMOs or GMMs(including enzymes)	☐YES	☑NO
If yes,please specify:		
We confirm that the ingredient supplied is compliant in all respects with the Regulations N° 1829/2003/EC and N° 1830/2003/EC where applicable	☑YES	☐NO

SUBSTANCES OR PRODUCTS CAUSING ALLERGIES OR INTOLERANCES

According to Regulation(EU)No.1169/2011 as regards of ingredients present in foodstuffs

Allergenic substances (Regulation EU 1169/2011 – Annex II)	Present in finished product	Present in the manufacturing site	Present on the same manufacturing line	Possible cross-contamination
Cereals containing gluten (i.e. wheat, rye, barley, oats, spelt, kamut or their hybridised strains)	NO	NO	NO	NO
Crustaceans and products thereof	NO	NO	NO	NO
Eggs and products thereof	NO	NO	NO	NO
Fish and products thereof	NO	NO	NO	NO
Peanuts and products thereof	NO	NO	NO	NO

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Soybeans and products thereof	NO	NO	NO	NO
Milk and products thereof (including lactose)	NO	NO	NO	NO
Nuts (almond, hazelnut, walnut, cashew, pecan nut, Brazil nut, pistachio nut, macadamia nut)	NO	NO	NO	NO
Celery and products thereof	NO	NO	NO	NO
Mustard and products thereof	NO	NO	NO	NO
Sesame seeds and products thereof	NO	NO	NO	NO
Sulphur dioxide and sulphites (>10 mg/kg or 10 mg/L expressed as SO_2)	NO	NO	NO	NO
Lupin and products thereof	NO	NO	NO	NO
Molluscs and products thereof	NO	NO	NO	NO

NON IRRADIATION

According to UE Directive No.1999/2/CE

Has this raw material or one of its ingredients been irradiated or ionised	☐YES	☑NO
We confirm above non-irradiation statement is available	☑YES	

NANOMATERIAL

According to Regulation(EU)No 1169/2011

Does this raw material contain or can be considered asengineered nanomaterial	☐YES	☑NO
Does this raw material have been made with nanotechnology?	☐YES	☑NO
Does the product contain nanotechnology as defined by the French decree no.2012-232?	☐YES	☑NO

WADA Anti-Doping Statement

Current WADA Prohibited List

Does the product contain any prohibited substances (hormones, anabolic agents, stimulants) listed on WADA Prohibited List?	☐YES	☑NO
Is there any risk of cross-contamination with WADA banned substances during production?	☐YES	☑NO

RESIDUAL SOLVENTS

According to UE Directive 2009/32 modified by (UE)2010/59 and CPMP/ICH/283/95Q3C

Does the raw material contain any residual solvent	☑YES	☐NO
If yes,please give: percentage and name of each solvent used: Water & Ethanol level of residual solvents:Ethanol≤5000ppm		

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Is the product in compliance with the UE Directive 2009/32	☑YES	☐NO
Is the product in compliance with the ICH guidelines	☑YES	☐NO

FOOD CERTIFICATE

Manufacturer's quality certificates:				
☑ ISO 9001	☐ HACCP	☐ ISO 14001	☐ ISO 22000	☐ OTHER

Is the raw material Food Grade?	☑YES	☐NO
Can the product be used in baby food(Directive 2006/141/CE)?	☐YES	☑NO
Does the product comply with the UE Regulation No231/2012 about additives?	☐YES	☑NO
Is the product complying with a Pharmacopeia monography?	☐YES	☑NO
Is the product complying with the UE Regulation No.1334/2008 about flavourings?	☐YES	☑NO
Was the product used in the European food industry before May 1997?	☑YES	☐NO
If no,could you provide an authorisation (according to Regulation 258/97/EC)?	☐YES	☐NO
Are stability studies available?	☑YES	☐NO

CONTAMINANTS

Is the product conforming to UE regulations No 2023/915 setting maximum levels for certain contaminants in foodstuffs,as amended?	☐YES	☐NO

Contaminants	Tested?	Result
Pesticides (multi-residue)?	Yes (per batch COA, GC-MS/LC-MS)	Complies with (EC) No 396/2005
Dioxins and dioxin like PCBs?	On request	Not tested routinely – can be provided on request
Heavy metals	Yes (per batch COA, ICP-MS)	Complies (Pb≤3, As≤2, Cd≤1, Hg≤1 ppm)
PAHs(PAH4)	Yes (per batch COA, GC-MS)	≤50 µg/kg (see TDS)
Benzo[a]pyrens?	Yes (per batch COA, GC-MS/HPLC)	≤10 µg/kg (see TDS)
Mycotoxins (Aflatoxins, OTA)	On request	Not applicable; can be tested on request
3-MCPD	NO	Not applicable
Doping like substances? http://list.wada-ama.org/	NO	Not applicable

FOREIGN BODIES

Which material do you use in order to fight against the foreign bodies			
	Presence?	Test frequency	Where is it located on the process line?
Magnet	YES	Continuous	Raw material intake / processing line
Metal detector	YES	Each batch	Before packaging
Sieve	YES	Continuous	During processing
Filter	YES	Continuous	Extraction / filtration stage
X-ray detection	NO	N/A	N/A

Other(please specify)			

NUTRITIONAL VALUES

Nutritional Composition	☑Per 100g ☐Per serving
Energy (kJ/kcal)	1300 kJ / 310 kcal
Total Fat (g)	2.0 g
Total Carbohydrate (g)	58.0 g
Fibre (g)	20.0 g
Protein (g)	5.0 g
Salt (g)	<0.10 g
Vitamins:	/
Minerals:	/
Remarks: Nutrition Data are obtained by 3rd party lab; tested on a yearly basis	

TRACEABILITY

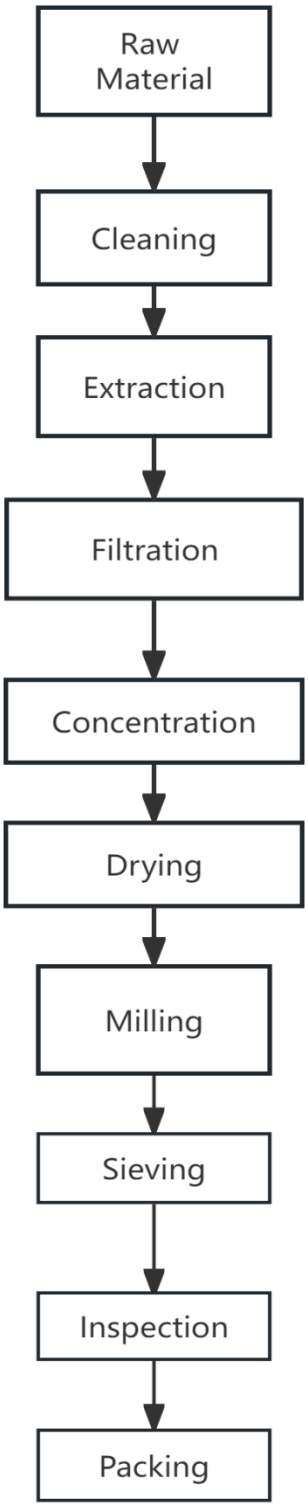
Batch size	500kg
Batch definition	A batch is defined as a homogeneous production lot produced under the same conditions
Signification of the batch number by an example	
Marking method (labelling...)	

PACKAGING

Is the packaging material approved as food grade according to regulations 1935/2004,10/2011 and 1282/2011?	☑YES ☐NO
Do you guarantee the packaging traceability according to regulation 1935/2004(art 17)?	☑YES ☐NO
Can you guarantee that the product and its packaging supplied t(do not contain Phthalates?	☑YES ☐NO
Can you guarantee that the product and its packaging supplied to do not contain ITX? (A packaging contaminant:Isopropylthioxanthone(ITX)found in dairy products)	☑YES ☐NO
Can you guarantee that the product and its packaging supplied tos do not contain BisphenolA(BPA)?	☑YES ☐NO
Do you add desiccant bags during packaging process? If so,where do you mention it:……	☑YES ☐NO
Can you provide migration test in order to guarantee packaging safety?	☑YES ☐NO

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Flow Chart



Safety Data Sheet (SDS)

Revision: 02/27/2026
Validity period:02/26/2027

Section 1 Identification of Substance

Product Name:	Hops Extract 8-PN ≥0.1% + Xanthohumol >0.5%	**Supplier / trade brand:**	Smartherb Inc
Address:	No.76-3 Chengnan Road, Huaxi Subdistrict, Changxing County, Huzhou City, Zhejiang Province, 313100, China		

Section 2 Hazards Identification

Label elements

Hazard pictograms	None required
Signal word	None required
Hazard statements	None required
Precautionary statements	No precautionary statements required. Avoid dust generation and unnecessary exposure.

Section 3 Composition, Information on Ingredients

Component	Ratio	Country of origin
Hops Extract	100%	China

Section 4 First Aid Measures

4.1 Description of first aid measures

Inhalation: Move the person to fresh air. Keep at rest. Obtain medical advice if irritation, coughing or breathing discomfort persists.

Skin contact: Wash with water and soap. Remove contaminated clothing. Obtain medical advice if irritation persists.

Eye contact: Rinse cautiously with clean water for at least 15 minutes, including under the eyelids. Remove contact lenses if present and easy to do. Seek medical advice if irritation persists.

Ingestion: Rinse mouth. Do not induce vomiting. Give water if the person is conscious. Obtain medical advice if a large amount is swallowed or symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

Dust may cause temporary mechanical irritation of the eyes, nose, throat or respiratory tract. No product-specific delayed effects are known from the available information.

4.3 Indication of immediate medical attention and special treatment

Treat symptomatically. No specific antidote is known.

Section 5 Fire-Fighting Measures

5.1 Extinguishing media

Suitable media: Water spray, carbon dioxide, dry chemical powder or suitable foam. Select media appropriate to the surrounding fire.

Unsuitable media: Avoid a high-pressure water jet where it could disperse accumulated powder.

5.2 Special hazards arising from the substance

The product is not classified as flammable. Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide and nitrogen oxides. Dispersed fine dust may form a combustible dust-air mixture.

5.3 Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing when fighting a significant fire. Prevent contaminated firefighting water from entering drains or surface water where practicable.

Section 6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid dust formation and inhalation. Wear eye protection and suitable work gloves. Use particulate respiratory protection when ventilation is insufficient or significant airborne dust is generated.

6.2 Environmental precautions

Prevent large quantities from entering drains, surface water or soil. Notify the relevant authority if a significant release reaches the environment.

6.3 Methods and material for containment and cleaning up

Collect with an industrial vacuum fitted with an appropriate particulate filter, or sweep carefully while minimising dust. Place in a labelled, closed container for recovery or disposal. After bulk collection, wipe remaining residue with a damp cloth. Do not use compressed air for cleaning.

Section 7 Handling and Storage

7.1 Precautions for safe handling

Use adequate ventilation or local exhaust where dust may be generated. Avoid contact with eyes and prolonged skin contact. Avoid ingestion and inhalation of dust. Prevent dust accumulation on surfaces. Keep away from ignition sources where dust clouds may occur. Wash hands after handling and before eating, drinking or smoking.

7.2 Conditions for safe storage, including incompatibilities

Keep the container tightly closed in a cool, dry and well-ventilated place.Keep away from strong oxidising agents, strong acids and strong bases.

7.3 Specific end use

Raw material for professional manufacture. Follow the applicable product specification, food hygiene requirements and workplace risk assessment.

Section 8 Exposure Controls/Personal Protection

8.1 Exposure controls

Engineering controls: Provide general ventilation and local dust extraction at transfer, weighing, milling or filling points. Avoid open handling that creates visible dust clouds.

Eye/face protection: Safety glasses with side shields or goggles conforming to EN 166 where dust exposure is possible.

Hand protection: Suitable protective gloves selected according to the workplace risk assessment. Inspect before use.

Skin/body protection: Clean work clothing. Remove and wash contaminated clothing before reuse.

Respiratory protection: Normally not required with adequate ventilation. If significant dust is generated, use an EN 149-compliant particulate respirator, such as FFP2, or equivalent, as determined by the risk assessment.

Hygiene measures: Do not eat, drink or smoke in handling areas. Wash hands and exposed skin after use.

Environmental exposure controls: Avoid uncontrolled release of large quantities to drains or the environment.

Section 9 Physical and Chemical Properties

Physical States	[ ] Gas [ ] Liquid [X] Solid
Melting Point	No data available.
Boiling Point	No data available.
Autoignition Pt	No data available.
Flash Pt	No data available.
Explosive Limits	LEL No data available. UEL No data available.
Specific Gravity (Water = 1)	No data available.
Vapor Pressure (vs. Air or mm Hg)	No data available.
Vapor Density (vs. Air = 1)	No data available.
Evaporation Rate (vs Butyl Acetate=1)	No data available.
Relative density	No data available.
Solubility in Water	Partially soluble in water; soluble in ethanol
Partition coefficient	No data available.
Auto-ignition temperature	No data available.
Viscosity	No data available.
Decomposition temperature	No data available.
PH	No data available.
Appearance and Odor	Light green to brownish-yellow powder

Section 10 Stability and Reactivity

10.1 Reactivity: No hazardous reaction is expected under recommended handling and storage conditions.

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: Hazardous polymerisation is not expected.

10.4 Conditions to avoid: Excessive heat, moisture, contamination, dust accumulation and ignition sources where a dust cloud may form.

10.5 Incompatible materials: Strong oxidising agents, strong acids and strong bases.

10.6 Hazardous decomposition products: Carbon monoxide, carbon dioxide and nitrogen oxides may be generated by thermal decomposition or combustion.

Section 11 Toxicological Information

Endpoint	Assessment
Acute toxicity	No adequate product-specific data are available. No basis for classification has been identified from the information reviewed.
Skin corrosion/irritation	Not classified based on available information. Dust may cause temporary mechanical irritation.
Serious eye damage/irritation	Not classified based on available information. Dust may cause temporary mechanical irritation.
Respiratory or skin sensitisation	No adequate product-specific data are available.
Germ cell mutagenicity	No adequate product-specific data are available. No basis for classification has been identified.
Carcinogenicity	No adequate product-specific data are available. No basis for classification has been identified.

Reproductive toxicity	No adequate product-specific data are available. No basis for classification has been identified.
STOT - single exposure	Not classified based on available information. Airborne dust may cause transient respiratory irritation.
STOT - repeated exposure	No adequate product-specific data are available.
Aspiration hazard	Not applicable to the product in solid form.
Likely routes of exposure	Inhalation of dust, eye contact, skin contact and ingestion.
Symptoms and delayed effects	Dust may cause temporary mechanical irritation. No adequate product-specific information on delayed or chronic effects is available.

Section 12 Ecological Information

Toxicity	No adequate product-specific aquatic toxicity data are available.
Persistence and degradability	No adequate product-specific biodegradation data are available.
Bioaccumulative potential	Significant bioaccumulation is not expected based on water solubility, but no product-specific study has been supplied.
Mobility in soil	The substance is water soluble and may be mobile in aqueous environments. No product-specific soil adsorption data are available.

Section 13 Disposal Considerations

13.1 Waste treatment methods

Product waste: Recover or recycle where practicable. Otherwise dispose of through an authorised waste contractor in accordance with applicable national and local requirements. Do not discharge bulk material to drains.

Contaminated packaging: Empty completely. Recycle or dispose of according to local requirements. Do not reuse contaminated packaging for food or feed.

Section 14 Transport Information

Transport mode	Classification
ADR/RID (road/rail)	Not regulated as dangerous goods
IMDG (sea)	Not regulated as dangerous goods
IATA/ICAO (air)	Not regulated as dangerous goods

Section 15 Regulatory Information

This SDS has been prepared with reference to Regulation (EC) No 1907/2006 (REACH), as amended, including the SDS requirements introduced by Regulation (EU) 2020/878, and Regulation (EC) No 1272/2008 (CLP), as amended.

Section 16 Other Information

This SDS is issued based on the latest official test data and industry standard specifications for Hops Extract All contents are for safety guidance only.

