

TEL:86-532-84875707 84875708 FAX:86-532-84875099 E-MAIL:alice@cnsunhere.com

Ginger Essential Oil

RAW MATERIALS AND ORIGIN:

Take high quality of dehydrated ginger pieces, which have been washed, sliced and sun dried from fresh rhizome of Zingiber officinale Rosc as raw material. The raw materials are Origin from Shandong province of china.

PRODUCTION TECHNOLOGY:

Grinded the raw material, and manufactured by using supercritical CO₂ extraction.

DESCRIPTION:

Pale yellow clear and transparent liquid with strong unique sweet fresh ginger, no taste

COMPOSITION:

Zingiberene, caryophyllene, zingiberene phenol, α -allyl acacia, among which gingerol content of less than 5%

PRODUCT SPECIFICATIONS:

Concentrated essential oils that provide products per gram of dried ginger from 60 grams or 480 grams fresh ginger

CHARACTERISTIC:

· Pure Nature. 100% ginger Extraction, no residual and chemical additives.

•Keep the first incense. CO2 is a colorless, odorless inert gas, Extraction Products to keep the original flavor, and heat damage to the ginger first incense easily be intact.

No taste. The production process of spicy ginger extract components were separated, the products retain only fresh ginger flavor, no spicy taste.

·Good oil-soluble. Completely dissolved in vegetable oil, easy to use.

APPLICATION:

•Food flavoring. Can be used for meat products, convenience foods, baked goods, etc., in order to increase the natural food aroma of fresh ginger

•Tobacco flavoring. Prepared for the different flavor the tobacco industry. Non-spicy taste, more convenient business use.

•Cosmetics, perfumery carrier oils. To increase the natural fresh ginger aroma cosmetics, make-up at the same time, the use of fresh ginger in a natural antioxidant components of increased health index

·Other cosmetic products

INSTRUCTIONS:

Appropriate amount of product according to business needs.

Food flavoring 0.02-0.05%, Tobacco flavoring 0.01-0.05%, Cosmetics carrier oils 0.01-0.1%, Other cosmetic products 0.01-0.02%.

PACKAGING AND STORAGE:

Food-grade tinplate cans or Fluorate drum or Aluminum Bottle. Net weight 1kg, 25kg, 200kg. As well as customer needs/requirements. Sealed container, low temperature in dark area, 4 $\,^{\circ}C$ refrigeration better.

VALIDITY PERIOD: 18 months.

PHYSICAL INDEX

<u> </u>	ITEM	INDEX
	Gingerol	10 ~ 14%
	Refractive Index (20°C)	1.4800 ~ 1.4980
	Relative Density (25/25°C)	0.8600 ~ 0.8850
	Acid mg.KOH/g	≤20
姜精油	Saponification Value	≤50
吉岛三和利 SUNHERE EXTRACT	Rotation (20°C)	—26°C ~ —45°C
	Arsenic (As) %	≪0.0002
	Heavy Metal (pb mg/kg) %	≤0.001



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Ginger Oleoresins

RAW MATERIALS AND ORIGIN:

Take high quality of dehydrated ginger pieces, which have been washed, sliced and sun dried from fresh rhizome of Zingiber officinale Rosc as raw material. The raw materials are Origin from Shandong province of china.

PRODUCTION TECHNOLOGY:

Grinded the raw material, and manufactured by using supercritical CO₂ extraction.

DESCRIPTION:

Reddish Brown to Light Brown oily liquid, having the spicy taste of Ginger.

<u>COMPOSITION</u>: β-elemene, Phellandrene, Gingerol, Zingiberene, Shogaol, Gingerdione, etc.

Gingerols(6-gingerol) 16~30%

Ginger Oil≥35%

CHARACTERISTIC:

· Pure Nature. 100% ginger Extraction, no residual and chemical additives.

- Original Aroma and Taste.
- · High quantity of active component.
- \cdot Can dissove in vegetable oils completely and higher than 70% ethanol
- · Good resist to oxidization. Oxidization efficiency > 50% of natureVE.

APPLICATION:

- · Drink, Beer, Soy Sauce, Vinaigre, Cooked Meat, Fast food, Puffing food, Bake food and Soft food etc.
- · Cosmetics, Toothpaste, Soap, Hand sanitizer, Shampoo and Body wash etc.
- · Aromatherap, SPA, Body, Hair and lose weight etc.

• Function Foods: antioxidant; as a treatment of migraine headaches, rheumatism and arthritis; activating blood circulation, aphrodisiac and antithrombotic; Anti-tumor, especially Skin Cancer.

• Medicine: antibacterial and antiphlogistic; Prevent carsick seasick and athletic nausea; Single or compound materials of Chinese medicine.

INSTRUCTIONS:

The fragrance and taste of per gram of this product is equivalent to 50g pure ginger.

This product can be added directly or dilute with ethanol, vegetable oil. The addition quantity should be choose to best suit the specific application, Reference dose: Cooked Meat $0.01^{-0.03}$, Soy Sauce $0.02^{-0.05}$, Fast food, Puffing food, bake food $0.005^{-0.01\%}$, Beer drink $0.001^{-0.005\%}$.

PACKAGING AND STORAGE:

Food-grade tinplate cans or Fluorate drum or Aluminum Bottle. Net weight 1kg, 25kg, 200kg. As well as customer needs/requirements.

Sealed container, low temperature in dark area, 4 $\,^\circ C\,$ refrigeration better.

VALIDITY PERIOD: 18 months.

PHYSICAL INDEX

8	ITEM	INDEX
姜油树脂 <u> 黄油内脂</u> <u> し い HERE EXTRACT</u>	Gingerol	20-25%
	Refractive Index $(20^{\circ}C)$	1.4990 ~ 1.5190
	Relative Density (25/25 $^{\circ}$ C)	0.8568 ~ 0.9880
	Acid mg.KOH/g	≤20
	Saponification Value	≤50
	Residual Solvents	Supercritical CO2 extraction,
		no Residual Solvents
	Heavy Metal (pb mg/kg) %	≤0.001



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Liquid Gingerols

DESCRIPTION:

Dark brown or reddish brown liquid

PRODUCTION PROCESS:

Producing high-quality fresh ginger in Shandong as raw material, washing, peeling, natural drying, high-speed crushed by supercritical fluid extraction, supercritical fluid after the CO2 level by separation, separation of secondary and special molecular distillation process to obtain high purity ginger Spicy vegetable oil-like products.

MAJOR COMPONENTS

Gingerol, ginger allyl phenol, ketone, vice ginger oil, ginger ketone, diketone spicy ginger, ginger and spicy diol **PRODUCT SPECIFICATIONS:**

1:30 concentrated essential oils that products obtained from each gram of dried ginger 30 grams or 240 grams fresh ginger. Gingerol concentration of 40-70%

CHARACTERISTIC:

·100% natural. Ginger natural raw materials, natural drying methods and natural extraction method.

•Zero residual solvent. Extraction process does not use any organic solvent; extraction high-pressure environment, CO2 gas closed, the extraction process of achieving sterilization; and supercritical CO2 fluid without dissolving power for organic pesticide, extraction of pesticides also can be separated from the product

.High purity. The main function of the fresh ginger component - gingerol (a variety of complex compounds) were repeatedly purified and concentrated. Can be used as pharmaceutical intermediates

·Good oil-soluble. Completely soluble in vegetable oils, easy to use.

APPLICATION:

•Pharmaceutical intermediates. Ginger functions as the main ingredients in medicine have anti-inflammatory, antioxidant, anti-inflammatory, and promote blood circulation and so on. High-purity gingerol is more suitable for pharmaceutical intermediates

·Other. Diluted can be used for food additives, health products, massage oils and other purposes.

INSTRUCTIONS:

Appropriate amount of product according to business needs.

PACKAGING AND STORAGE:

Food-grade tinplate cans or Fluorate drum or Aluminum Bottle. Net weight 1kg, 25kg, 200kg. As well as customer needs/requirements.

Sealed container, low temperature in dark area, 4 $\,^\circ\!C\,$ refrigeration better.

VALIDITY PERIOD: 18 months.

\bigcirc	ITEM	INDEX
	(6、8、10) Gingerol Ginger Alcohol Content	≥50%
	Relative Density (25/25°C)	0.9490 ~ 0.9880
姜辣素	Refractive Index (20°C)	1.5100~1.5300
<u>青岛三和利</u> SUNHERE EXTRACT	Acid mg.KOH/g	≤20
	Saponification Value	≤80

SUNHERE BIO-ENGINEERING CO., LTD.



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Hops Concrete

RAW MATERIALS AND ORIGIN:

Take hops or hop pellet, or compressed hop cone as raw materia. The raw materials are Origin from Xinjiang province of china.

PRODUCTION TECHNOLOGY:

Grinded the raw material, and manufactured by using liquid CO2 extraction technology.

DESCRIPTION:

Golden Yellow to Amber Color sticky liquid, with typical aroma of hop.

COMPOSITION:

A solid or resinous phase of alpha acid, beta acid, etc.

CHARACTERISTIC:

Pure Nature. 100% hop Extraction, No residual and chemical additives.

It has natural hop characteristic and aroma, and can partially or fully replace hop in the production of beers.

Good stability. Avoid oxidation of alpha acid which will degrade the taste of the beer.

Small size, easy to store and transport.

APPLICATION:

Beer and other soft foods

Daily Base Chemicals, Medical and Health care.

INSTRUCTIONS:

When applied to beer, it should be added when wort are boiling. If high alpha acid utilization are expected, it is recommended to be added at the initial stage of the boiling; If better aroma are to be kept, it is recommended to be added at the final stage of the boiling.

Open the containing tinplate use stainless steel tool, take out hop extract. For the residual left, use hot water or hot wort to melt and then pure into the boiling pan. Alternatively, the containing tinplate are drilled using tools, and hang into the boiling pan.

The quantity is calculated based on the concentration of alpha acid in hop extract, as well as customer needs/requirements. PACKAGING AND STORAGE:

Food-grade tinplate cans, 1.0kg/cans, Or per customer requirements/needs.

Store the product in dry, dark and cool(0-4 $^\circ\!\mathrm{C}$) environment.

VALIDITY PERIOD: 5 years

	ITEM	INDEX
	Concentration of the alpha acid	45%±2%
	Concentration of the beta acid	$21\% \pm 2\%$
	Concentration of the water	≪5.0%