





# COMMITTED TO HIGH-QUALITY MANUFACTURING

Benepure owns 3 plants manufacturing botanical extracts, APIs and amino acids series products in China. Benepure prides itself on manufacturing system standard above the GMP of multiple countries, which can meet demands of various international regulations. So far, benepure works with other 5 CMO factories in strategy, and keeps seeking cooperation with more quality manufacturers to improve its products supply-chain.

With high quality system, cutting-edge technologies, highly qualified professionals, strict safety standards, and the most up-to-date equipment, Benepure always steps ahead solutions and supplies qualified products.

Meanwhile, Benepure is dedicated to the reduction of emission pollution and environmental protection during the manufacturing process for long-term sustainability of social and economic development.

We're devoted to delivering not only our specially products but customized products as well with our professional services to customers' characters and requirements,











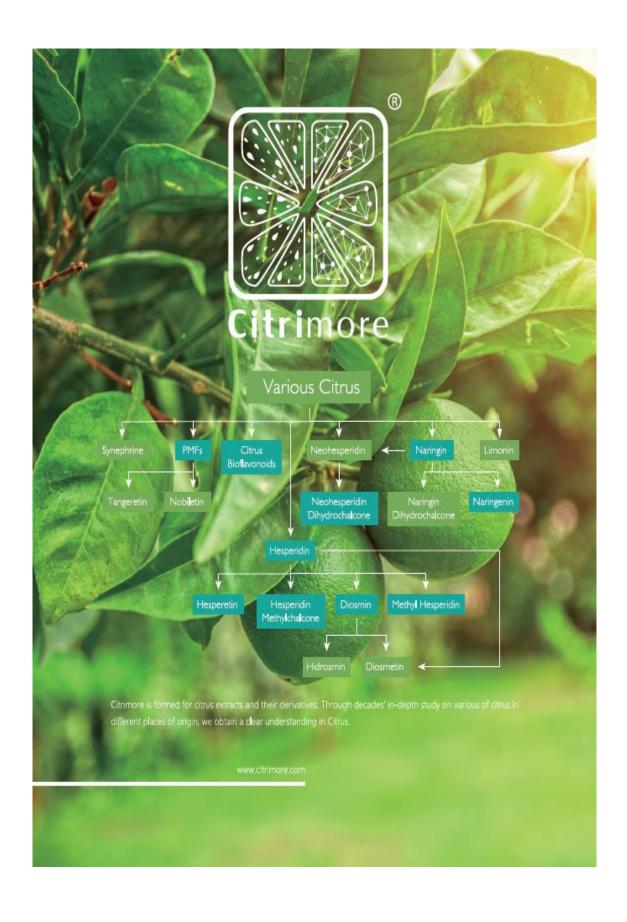














International Sales division: SMTY Bill 8F, 6-5-3, Nishinakajima, Yodogawa, Osaka, Japan, 532-0011

# DIOSMIN

### DESCRIPTION

Diosmin is a semisynthetic flavonoid molecule derived from citrus d (modified hesperidin).

Diosmin is used for treating various disorders of blood vessels including hemorrhoids, varicose veins, poor circulation in the legs (venous stasis), and bleeding (hemorrhage) in the eye or gums. It is also used to treat swelling of the arms (lymphedema) following breast cancer surgery, and to protect against liver toxicity. It is often taken in combination with hesperidin.

Diosmin is currently a prescription medication, and is also sold as a nutritional supplement.



High Assay: ≥95% for EP standard Impurity Control: Total impurities ≤4.0% Low Pesticide Residue Solvents Free

### PRODUCTION CAPACITY

300 mt/Year



Botanical Source: Citrus Aurantium L.

CITRIMORE

CAS No.: 520-27-4 EIENCS: 208-289-7

Molecular Formula: C28H32O15 Molecular Weight: 608.545

Specification: EP, BP, USP, 90:10, Micronized

Appearance:

Greyish-yellow or light yellow hygroscopic powder

Chemical Structure:

We can also control the qualityon customers' request.

# DIOSMIN+HESPERDIN 90:10

DMF, CEP, EU-GMP

It is the mixture of Diosmin and Hesperidin, which is widely used for pharmaceutical and food supplement.

## **NEW TECHNOLOGY**

Benepure has developed new technology to get the mixture directly by reaction process instead of blending. And the assay can be customized as request.

### **SPECIFICATIONS**

Micronized Micronized+Granulated





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# **HESPERIDIN**

### DESCRIPTION

The flavonoid hesperidin is a flavanone glycoside (glucoside) comprised of the flavanone (a class of flavonoids) hesperitin and the disaccharide rutinose. Flavonoids are a type of polyphenol, which are antioxidants found in plants and are essential to human health.

Besides its antioxidant properties, hesperidin can also be used as an anti-inflammatory, anti-allergic, hypolipidemic, vasoprotective, and anti-carcinogenic compound. It seems to reduce the symptoms of allergies and hay fever by inhibiting histamine production in the blood. Hesperidin, in combination with a flavone glycoside called diosmin, is used for the treatment of venous insufficiency and hemorrhoids.



CAS No.: 520-26-3 Molecular Formula: C28H34O15 Molecular Weight: 610.57

Specification: 90~95% HPLC, 98% UV, Micronized

Chemical Structure:

### RAW MATERIAL BASES



Raw material harvest time is about June to August.

Benepure would visit the bases and evaluate to make the purchasing plan, and select properly to guarantee the stability and abundance of the raw material supplying.



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# HESPERIDIN METHYLCHALCONE

CITRIMORE

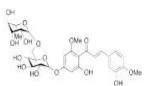
### DESCRIPTION

Hesperidin Methylchalcone is a methylate compound of soluble flavanone and soluble dihydrochalcone which can increase the effect of vitamin C with the same function as vitamin P.

What's more, characters in strong anti-virus and anti-bacteria. It is preventing influenza virus' breeding with large dosage, inhibiting tyrosinase which causing skin to black.

For the treatment of black spot, freckle such skin disease. It has an effect on remaining normal permeability, boosting resistance, enhancing elastic and toughness of vessels, preventing and curing blooding of capillary or gums.

CAS No.: 24292-52-2 Molecular Formula: C29H36O15 Molecular Weight: 624.59 Specification: 98% UV Appearance: Yellow powder Chemical Structure:



# **NARINGIN**

### DESCRIPTION

Naringin is a natural chemical compound known as a bioflavanoid found in grapefruit and other citrus fruits, giving it its bitter flavor. Hence, the food industry, uses naringin as a bitter in "tonic" beverages, bitter chocolate, ice cream, and ices.

This bioflavonoid has antioxidant and antifungal properties, as such may help prevent cancer and atherosclerosis (hardening of arteries), as well as a number of other ailments, such as Herpes, Diabetes, Alcoholism, Heart failure, Chronic venous insufficiency, Bruising.

Naringin also works synergistically with other nutrients, increasing the bio-availability (how much nutrient is absorbed by the body) and therefore maximizing the health benefits of these nutrients.

CAS No.: 10236-47-2 Molecular Formula: C27H32O14 Molecular Weight: 580.54 Specification: 90%, 95%, 98% HPLC Appearance: Almost white powder Chemical Structure:



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# **NEOHESPERIDIN**

### DESCRIPTION

It is the 7-O-neohesperidose derivative of hesperetin, which in turn is the 4'-methoxy derivative of eriodictyol. The main use of Neohesperidin is to get Neohesperidin dihydrochalcone which is an intensive sweetener widely used in food and feed industry. CAS No.: 13241-33-3

Molecular Formula: C28H34O15 Molecular Weight: 610.56 Specification: 95% HPLC

Appearance: Light white fine powder

Chemical Structure:

## HIDROSMIN

### DESCRIPTION

Hidrosmin, a derivative of Diosmin, is a semisynthetic drugand a member of the flavonoid family. It is used for the treatment of venous diseases.

Compared with Diosmin, Hidrosmin is more effective, which can efficiently treats edema and varicose ulcer, Hidrosmin gains better water solubility, and can be more easily absorbed by human body, less dosage required when people take it. CAS No.: 115960-14-0

Molecular Formula: C30H36O16 Molecular Weight: 654.6142 Specification: ≥85% HPLC

Appearance; Yellow or yellow-brown hygroscopic powder, odorless

Chemical Structure:

# **HESPERETIN**

## DESCRIPTION

Hesperetin is the 4'-methoxy derivative of eriodictyol, a flavanone. Hesperetin's 7-O-glycoside, is hesperidin. It is obtained from the enzymolyis of hesperidin.

It is mainly coming from the enzymolysis of hesperidin with the functions of invigorating the stomach, eliminating phlegm, preventing cough, expelling rheumatism, treating diuresis, anti-virus, anti-microbial, treating non-return and relieving stomachache, widely used in the food, pharmaceutical and healthcare product industry etc.

CAS No.: 520-33-2

Molecular Formula: C16H14O6 Molecular Weight: 302.28 Specification: 90%, 95%, 98% HPLC

Appearance:

Light-cream yellow fine powder, melting point: 226-228°C, easily soluble in ethanol, soluble in diluted alkali solution, partly soluble in diethyl ether, slightly soluble in water, chloroform and benzene.

Chemical Structure:

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# CITRUS AURANTIUM EXTRACT (SYNEPHRINE)

### **SYNEPHRINE**

CAS No.: 94-07-5

Molecular Formula: C9H13NO2 Molecular Weight: 167.21 Specification: 6%–98% HPLC Appearance: Brown to white fine powder Chemical Structure:

### DESCRIPTION

Synephrine is the main active ingredient in the citrus aurantium extract, whichis mainly used in dietary supplements and slimming products. It can effectively oxidize fat and suppress appetite as the main component of slimming products.

Synephrine for the treatment of bronchial asthma and surgery and anesthesia, hypotension, collapse and shock, orthostatic hypotension. Synephrine is also a 21st centurynatural stimulant with no side effects and positive reactions.

It is widely used in the health care industries such as medicine, food and beverage. The demand and value of synephrine will increase with the ban on the use of chemicallysynthesized drugs.

# CITRUS BIOFLAVONOIDS

### DESCRIPTION

The common citrus bioflavonoids include Apigenin, Diosmin, Diosmetin, Hesperidin, Hesperetin, Naringin, Naringenin, Narirutin, Neohesperidin, Nobiletin, Quercetin, Rutin, Tangeretin.

Citrus bioflavonoids and related substances are widely used to treat diseases of the blood vessels and lymph system, including hemorrhoids, chronic venous insufficiency, leg ulcers, easy bruising, nosebleeds, and lymphedema following breast cancer surgery.

Citrus bioflavonoids are thought to work by strengthening the walls of blood vessels.

Citrus bioflavonoids are believed to have antioxidants, anti-viral, anti-inflammatory, and anti-allergy properties. They have been shown to help fight infection, free radical damage, viruses and the common cold. Specification: 20%-85% HPLC, Water Soluble 10%-35% Appearance:

Brownish powder, soluble in dimethyl formamide and formamide at 60°C, slightly soluble in methanol and heat glacial acetic acid, practically insoluble in acetone, benzene and chloroform, freely soluble in dilute alkali and pyridine. Chemical Structure:

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# **RUTIN**

### DESCRIPTION

Rutin, also called rutoside, is the glycoside combining the flavonol quercetin and the disaccharide rutinose.

Rutin is a glycoside of the flavonoid guercetin. As such, the chemical structures of both are very similar, with the difference existing in the hydroxyl functional group. Both quercetin and rutin are used in many countries as medications for blood vessel protection, and are ingredients of numerous multivitamin preparations and herball remedies.

It has function of reducing capillary permeability and fragility and also can be used as adjuvant treatment in preventing hypertension.

CAS No.: 250249-75-3 Molecular Formula: C20H36O3 Molecular Weight: 324.498 Specification: EP, NF11, DAB10 Appearance:

Yellow or greenish-yellow crystalline powder.

Chemical Structure:



### DESCRIPTION

Troxerutin also called Venoruton, Vitamin P4, is classified as bioflavanoid. It is a derivate of Rutin through hydroxyethylation, able to use directly as API. It can be used to the treatment of varication, thrombosis and cerebrovascular disease, thrombosis has better water-solubility and drug effect than Rutin.

Troxerutin is useful in inhibiting aggregation of red blood cells and platelets, preventing thrombogenesis, increasing blood oxygen content and promoting neovascularity at the same time.

It can also build up capillary resistance, lower capillary permeability, so that to prevent edema caused by increasing capillary permeability. It is with more functions, such as anti-radiation lesion, anti-inflammatory, anti-allergic, anti-ulcer, etc.

CAS No.: 7085-55-4

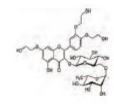
Molecular Formula: C30H36O16

Molecular Weight: 742.67

Specification: EP

Appearance: Yellow powder

Chemical Structure:



TROXEPURE

## **CITRUS**

Hesperidin	90%~95%HPLC, 98%UV	520-26-3
Diosmin	EP, BP, USP, 90:10, Micronized	520-27-4
Hesperidin Methylchalcone	98%UV	24292-52-2
Neohesperidin Dihydrochalcone	EP	20702-77-6
Citrus Bioflavonoids	20%~85%HPLC, Water soluble 10%~35%	N/A
Varingin	98%HPLC	10236-47-2
Veohesperidin	95%HPLC	13241-33-3
Citrus Aurantium Extract	Synephrine 6%~98%HPLC	94-07-5
Citrus Polymethoxy Flavones(PMFs)	30%~80%HPLC	N/A
Hidrosmin	85%HPLC	115960-14-0
Hesperetin	90%, 95%, 98%HPLC	520-33-2
Varingenin	98%HPLC	480-41-1
Naringin Dihydrochalcone	98%HPLC	18916-17-1
Methyl Hesperidin	94%UV	24292-52-2
Diosmetin	90%~98%HPLC	520-34-3
Nobiletin	1%~98%HPLC	478-01-3
angeretin angeretin	1%~98%HPLC	481 <b>-</b> 53 <b>-</b> 8
imonin	30%~98%HPLC	1180-71-8
emon Bioflavonoids	50%HPLC	N/A
Apigenin	90%~95%HPLC	520-36-5
Luteolin	90%~95%HPLC	491-70-3

### **RESVERATROL**

Resveratro (Polygonum Cuspidatum)	20%~99%HPLC	501-36-0
Resveratro (Vitis vinifera L.)	3%, 5% HPLC	501-36-0

### SOPHORA JAPONICA L.

Rutin	EP, NF11, DAB10	250249-75-3
Troxerutin	EP	7085-55-4
Quercetin	95%HPLC, 98%UV, HBD, Granular	6151-25-3/117-39-5
L-rhamnose Monohydrate	98%HPLC	10030-85-0

### **NATURAL SWEETENERS**

Neohesperidin Dihydrochalcone	EP	20702-77-6
Stevia Leaf Extract	Steviol Glycosides, Reb-A, STV, Glucosyl Steviol	N/A
Luo Han Guo Extract	Mogrosides, Mogrouside V	N/A
Naringin Dihydrochalcone	98%HPLC	18916-17-1
L-rhamnose Monohydrate	98%HPLC	10030-85-0

## **TEA EXTRACTS & DERIVATIVES**

Polyphenols 30%~98%UV

Catechin Monomer Series (EGCG, EC, EGC, ECG)

Tea Extract Theanine

Tea Polysaccharide Theaflavin, Theabrownins

### POLYPHENOLS & ANTHOCYANIDINS

OPC 90%-98% UV	
Anthocyanidin 5%-25%UV, Anthocyanins 5%-36%HPLC, Concentrated Juice Powder	
Anthocyanidin 1%~25%UV, Anthocyanins 1%~36%HPLC, Concentrated Juice Powder	
Anthocyanidin 5%~25%UV, Anthocyanins 5%~35%HPLC, Concentrated Juice Powder	
OPC 5%~60%UV, Anthocyanidins 5%~25%, Concentrated Juice Powder	
OPC 5%~60%UV, Anthocyanidins 5%~25%, Concentrated Juice Powder	
OPC 90%-98% UV	
Polyphenols 4%-7%HPLC/UV	
Polyphenols 70%~80%UV, Concentrated Juice Powder	
OPC 25%UV, Anthocyanidins 25%, Concentrated Juice Powder	

### OTHER BOTANICAL EXTRACTS

Berberine HCL	Epimedium Extract	Lemon Balm Extract
Baicalin	Tongkat All Extract	Maca Extract
Baicalein	Acerola Cherry Extract	Motherwort Extract
Esculin	Aloe Vera Extract	Olive Leaf Extract
Soy Isoflavones	Andrographolide	Passion Flower Extract
Milk Thistle Extract	Avocado Soybean Extract	Phosphatidylserine
Saw Palmetto Extract	Garlic Extract	Red Clover Extract
Ginkgo Billoba Extract	Ginger Extract	Rhodiola Rosea Extract
Oleonolic Acid	Ginseng Extract	Rose Hip Extract
Beta-Ecdysteron	Griffonia Seed Extract (5-HTP)	Rotundine
Cat's Claw Extract	Guarana Extract	Shikimic Acid
Centella Asiatica Extract	Hop Flower Extract	St. John's Wort Extract
White Willow Bark Extract	Horse Chestnut Extract	Tribulus Terrestris Extract
Ferulic Acid	Huperzine A	Valerian Extract
Yohimbine HCL	lvy Leaf Extract	Yucca Extract

### **VITAMIN SERIES & NUTRACEUTICAL SUPPLEMENTS**

Coenzyme Q10	USP, CWS
Curcumin	95%, 98%HPLC
Lycopene	1%-90%HPLC
Lutein	5%~90%HPLC
Zeaxanthin	5%~80%HPLC
Capsaicin	95%~99%HPLC
Astaxanthin	1%~10%HPLC/UV, Powder/Oil
Red Yeast Rice Powder	Monacolins K
Inulin	90%, 95%
Spirulina Powder	Protein 60%
Chlorella Powder	Protein 60%
Vitamin B1	Pharm./Food/Feed Grade
Vitamin B6	Pharm./Food/Feed Grade
Vitamin B12	Pharm,/Food/Feed Grade
Vitamin D2	Pharm./Food/Feed Grade
Vitamin D3	Pharm./Food/Feed Grade
Vitamin E	EP, Powder/Oil

### **AMINO ACIDS & DERIVATIVES**

	Fmoc-Ala-OH	Fmoc=His(Trt)=OH	Fmoc-Trp=OH
Fmoc-Amino Acids -	Fmoc-Arg(Pbf)=OH	Fmoc-lle-OH	Fmoc=Trp(tBu)=OH
	Fmoc-Asn(Trt)-OH	Fmoc-Leu-OH	Fmoc-Val-OH
	Fmoc-Asp(OtBu)-OH	Fmoc-Lys(Boc)–OH	Fmoc-D-Ala-OH
	Fmoc-Asp-OtBu	Fmoc-Met-OH	Fmoc-D-Arg(Pbf)-OH
	Fmoc-Cys(Trt)-OH	Fmoc-Orn(Boc)-OH	Fmoc-D-Glu(OtBu)-OH
	Fmoc-Cys(Acm)=OH	Fmoc-Phe-OH	Fmoc-D-Trp-OH
	Fmoc-Gln(Trt)-OH	Fmoc-Pro-OH	Fmoc=D=Trp(Boc)=OH
	Fmoc-Glu(OtBu)-OH	Fmoc-Ser(tBu)-OH	Fmoc-D-Phe-OH
	Fmoc-HomoArg(Pbf)-OH	Fmoc-Thr(tBu)-OH	
	Boc-Alla-OH	Boc-Asp(OtBu)-OH	Boc-Lys(Cbz)-OH
	Boc-Arg(Tos)-OH	Boc-His(Trt)-OH	Boc-Ser(Bzl)-OH
Boc-Amino Acids	Boc-Arg.HCL.H2O	Boc-Leu-OH.H2O	Boc-Thr(Bzl)-OH
	Boc-Asp-OtBu-OH	Boc-Lys(Boc)-OH.DCHA	Boc-Tyr(Bzl)=OH
	Boc-Asp-oBzl	Boc-Lys(2-CL-Z)+OH	Boc-Val⊷OH
	Cbz-Arg(Tos)=OH	Cbz-Lys(2-CL-Z)-OH	Cbz-Thr(Bzf)-OH
Cloz-Amino Acids	Cbz-Asp(Obzl)-OH	Cbz-Lys(Fmoc)-OH	Cbz-Tyr(Bzf)-OH
CDZ-MIIIIO ACIOS	Cbz-Asp(OtBu)-OH	Cbz-Ser(Bzll)-OH	Cbz-Val-OH
	Cbz-Glu(Obzl)-OH	Cbz-Ser(tBu)-OH	
Other Derivatives	H-Alla-NH2.HCL	D-His-OH	H-Tyr(Bz <b>t</b> )-OH
	H-Ala-O8zl.HCL	D- <b>II</b> e-OH	H-Tyr(tBu)-OH
	H=Asp(OtBu)=OH	H-Lys(Boc)-OH	D=Trp=OH
	D=Arg.HCL	H-Leu-OtBu.HCL	D=Thr=OH
	D-Glu-OH	D-Leu-OH	H-Val-OBzl.Tos

## **APIs**

Central Nervous System	Quetiapine Fumarate	EPB.0	111974-72-2
	Sulfasalazine	USP39	599-79-1
	Obeticholic Acid	Enterprise Standard	459789 <b>-</b> 99 <b>-</b> 2
Alimentary Tract	Eluxadoline	Enterprise Standard	N/A
	Ursodeoxycholic Acid	Enterprise Standard	128-13-2
Steroid Hormone	Ulipristal Acetate	Enterprise Standard	126784-99-4
	Paclitaxel	Natural/Semi=synthetic	33069-62-4
Antineop <b>l</b> astic	Beta-Sitosterol	40%-70%	83-46-5
Antiallergics	Levocetirizine Dihydrochloride	Enterprise Standard	130018-87-0
	Cincocaine HCL	USP40	61-12-1
Local Anesthesia	Tetracaine HCL	USP39	136-47-0
	Benzocaine	USP37/EP	94 <b>-</b> 09 <b>-</b> 7
Veterinary Drugs	Halquinol	BP8.0	8067-69-4
Respiratory System	Levodropropizine	EP8.0	99291-25-5

## **INTERMEDIATES**

Isavuconazonium Sulfate & Its Intermediates	≥95%, ee = 100%, Individual Impurity ≤1.0%	946075-13-4
	≥99%, ee = 100%, Individual Impurity ≤0.1%	241479-67-4
	≥99%, ee = 100%, Individual Impurity ≤0.1%	368421-58-3
	≥99%, ee = 100%, Individual Impurity ≤0.2%	241479-74-3
	≥99%, ee = 99%, Individual Impurity ≤0.2%	241479-75-4
	≥97%, ee = 98%, Individual Impurity ≤0.3%	483340-19-8
	≥98%, Individual Impurity ≤0.5%	20099-89-2
	≥99%, Indivídual Impurity ≤0.2%	1180002-01-0
	≥98%, Individual Impurity ≤0.3%	338990-31-1
	≥99%, ee≥99%, Individual Impurity ≤0.1%	171228-49-2
Posaconazole	≥99%, ee≥99%, Individual Impurity ≤0.2%	184177-83-1
& Its Intermediates	≥99%, ee≥99%, Individual Impurity ≤0.3%	149809-43-8
	≥99%, ee≥99%, Individual Impurity ≤0.1%	175712-02-4
	≥99%, Indivídual Impurity ≤0.2%	914462-92-3
Rolapitant Intermediates	≥99%, Individual Impurity ≤0.2%	1214741-21-5
	≥99%, Individual Impurity ≤0.2%	1214741-14-6
Object - No. 4	≥99%	459789-99-2
Obeticholic Acid & Its Intermediates	≥98%	1352328-66-5
	≥99%	1516887-33-4