Peppermint Microencapsulated Powder

PRODUCT IN FOCUS

EXSYN®
ESSENTIAL CHEMISTRY

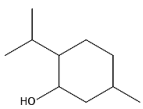
Peppermint Microencapsulated Powder

INTRODUCTION

Peppermint (Mentha piperita) is a common herb, also known as a hybrid mint. Its main components are oxygenated monoterpenes: alcohols, esters and ketones.
Peppermint oleoresin microencapsulated powder is a white to off-white coloured powder produced from the seeds of the plant. In order to protect and maintain the stability of peppermint oil, microencapsulation is carried out through process optimization using the coacervation technique. This technique helps limit the loss and degradation of flavours and aromas during processing and storage. It offers versatile applications across multiple industries — from food and beverages to pharmaceuticals, cosmetics, and textiles.

Manufacture

Oleoresin containing Peppermint essential oils and active flavour constituents is extracted using a suitable solvent extraction method. The collected oleoresin is then blended with food-grade emulsifiers serving as encapsulating medium. The mixture is homogenized to form a stable emulsion, ensuring uniform dispersion of the peppermint oil droplets within the carrier matrix. This homogenized emulsion is subjected to a microencapsulation process, typically through complex coacervation or other suitable encapsulation techniques. The final product is then dried, standardised.

Synonyms	*Menthae piperitae aetheroleum*; Peppermint oleoresin microencapsulated powder
CAS no.	8006-90-4
EINECS no.	616-900-7
Molecular formula	$C_{10}H_{20}O$
Molecular weight	156.27
Structure	

Applications

Microencapsulated peppermint powder is used across the food, pharmaceutical, cosmetic, and textile industries.

- **Food & Beverages**
  - Used in teas, flavored dairy products, chocolates, candies, desserts, bakery items, and chewing gums.
  - Microencapsulation helps retain peppermint aroma and flavour during processing and storage.
- **Nutraceuticals & Dietary Supplements**
  - Added in capsules, sachets, powders, and functional foods.
  - Provides a stable and controlled release of menthol for digestive and cooling effects.
- **Confectionery**
  - Widely used in mint candies, coated tablets, and breath-fresheners.
  - Encapsulation prevents flavour volatilisation and bitterness.
- **Pharmaceuticals**
  - Incorporated into oral healthcare formulations and gastrointestinal relief products.
  - Protects the active constituents and improves palatability.
- **Cosmetics & Personal Care**
  - Used in toothpastes, mouth fresheners, gels, and topical cooling formulations.
  - Microencapsulation offers controlled fragrance release and long-lasting freshness.

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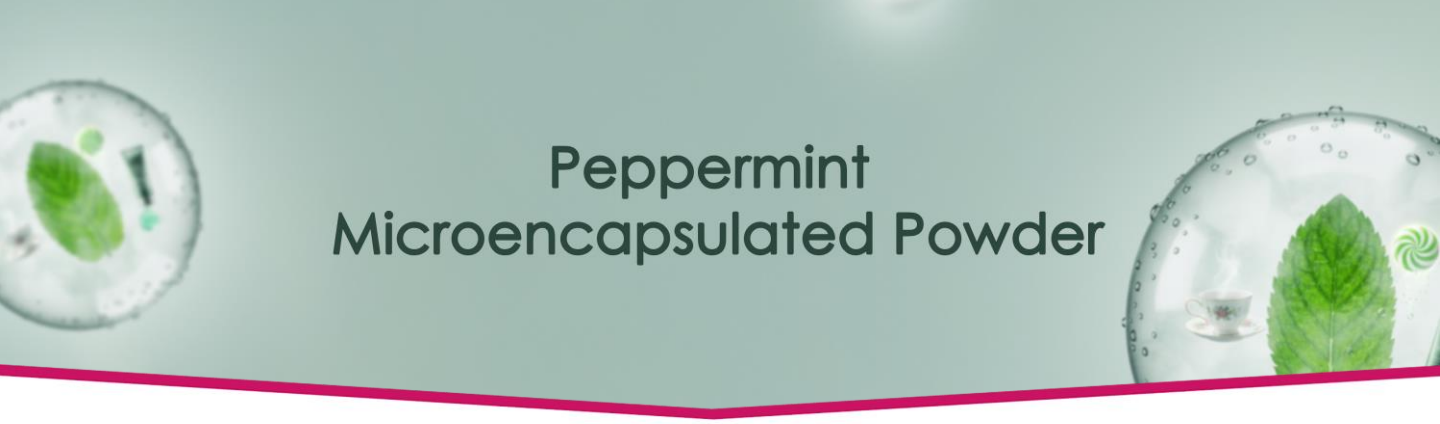

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SPECIFICATIONS

Test	Unit	Specification
Appearance	-	White to off white dry powder
Odour & Taste	-	Characteristic odour , Aromatic warm and hot
Identification (Organoleptic)	-	Characteristic smell, taste and color
Moisture content	%	NMT 6.0
pH	-	4.00 – 6.00
Heavy metal Analysis		
Cadmium content	ppm	NMT 0.3
Lead content	ppm	NMT 10
Mercury content	ppm	NMT 1
Arsenic content	ppm	NMT 3
Microbiological Analysis		
Total Viable Aerobic Count	Cfu/g	NMT 10000
Total Yeast and mold count	Cfu/g	NMT 100
Escherichia coli	-	Should be absent
Pseudomonas aeruginosa	-	Should be absent
Staphylococcus aureus	-	Should be absent
Salmonella	-	Should be absent

STORAGE & PRECAUTION
Store at ambient conditions

PACKING
25 kg HDPE drums

REACH Status
Not registered

ExSyn offers Peppermint Microencapsulated Powder on commercial scales and welcomes enquiries. No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.

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