



ΕΝΩΣΗ  
ΜΑΣΤΙΧΟΠΑΡΑΓΩΓΩΝ ΧΙΟΥ  
THE CHIOS GUM MASTIC  
GROWERS ASSOCIATION

## Chios Mastiha (Gum Mastic)

### Technical Specifications

Manufacturer/Supplier:	CHIOS GUM MASTIC GROWERS ASS.
Contact Person:	I. Benovias
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“**Chios Mastiha (Gum Mastic)**” is the air-dried, resinous exudation from *P. Lentiscus L.* (Family Anacardiaceae), a shrub of small evergreen tree that is native to the Mediterranean region and principally cultivated on the Greek island of Chios. Chios Gum Mastic is **100% natural product** and does not contain any harmful substance or any additives.

### Identification of Starting material

The starting material used to produce this product is compliant with the requirements of the current Ph. Eur. monograph for Mastic.

### Organoleptic Properties

Appearance: Transparent / opaque crystalline granules in a teardrop shape.

Color: off-white to yellowish

Odour: balsamic, green and rustic odour

### Natural occurrence

*Chios Gum Mastic*: Concrete of *Pistacia Lentiscus* var. Chia

### Characteristics

<i>Solubility</i>	:	Insoluble in water (~1%). Soluble in: isopropyl alcohol, acetone, hexane, methanol, chloroform, diethyl ether, n-butyl ether
<i>Density (20 °C)</i>	:	0,45 - 0,55 gr/ml (gr/ml) (20 °C)
<i>Hygroscopicity</i>	:	Medium
<i>Humidity</i>	:	5 ±2 % (including Chios Mastiha oil)
<i>Melting Range</i>	:	> 85°C



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*Total Ash* : *Max. 0.5 %*

*Particle Size* : *Small from 3 up to 6mm,  
Medium from 6 up to 10mm,  
Large from 10 mm and above*

### **Typical Composition**

Mastic gum : 100 %

***CAS Name:***

Mastic Gum

***CAS Number:***

061789-92-2

***EINECS:***

263-098-6

***INCI Name:***

MonoID: 13171 Pistacia Lentiscus (Mastic) Gum

### **Heat Stability**

: Stable under normal conditions of use. Becomes sticky on higher temperatures (> 20 °C)

### **Storage**

: Keep in a dry & cool place (<18 °C)  
Store in tightly closed packaging  
Transport and storage at ambient temperatures for short periods of time (up to 7 days) is acceptable (<25 °C). Store below 18°C for longer periods. Minimise exposure to light, heat and air."

### **Danger identification**

: No specific hazard known

### **Packaging**

: Chios Mastic Gum (Chios Mastiha) is available in different weights and various types of packaging under request.

### **Recommended use**

: Best before 36 months, under the recommended storage conditions





### **Chemical Composition:**

<b>Compound</b>	<b>Composition (%)</b>
<i>Essential Oil – Mastic Oil</i>	1 – 3
<i>Masticadienonic acid</i>	8 – 15
<i>Isomasticadienonic acid</i>	8 – 15
<i>Other triterpenic acid, aldehydes &amp; alcohols</i>	44 – 58
<i>Poly -<math>\beta</math>-myrcene (natural Polymer)</i>	25 – 30

*(typical analysis of different batches)*

### **Identification Method (Mastic)**

The starting material used to produce this product is identified according to the current Ph. Eur. monograph for Mastic by a lab authorized by the Greek Organization of Medicine.

	<b>Method of analysis</b>	<b>Specification Limits / results</b>
Identification	TLC	Appearance of six coloured zones according to Ph. Eur.
DNA test	DNA Analysis for the identification of the species in gum samples	Correspondence to the trnL region of Pistacia Lentiscus according to NCBI database
Quantification of Masticadienonic (M) and Isomasticadienonic acid (ISO)	HPTLC	>12 %

### **Microbiological Parameters**

	<b>Method of analysis</b>	<b>Specification Limits</b>
Total Aerobic Microbial Count	European Pharmacopoeia 9/2.6.12	< 1000 cfu/g
Total Yeast and Mould Count	European Pharmacopoeia 9/2.6.12	< 100 cfu/g
E-Coli	European Pharmacopoeia 9/2.6.13	Absent in 1g
Staphylococcus aureus	European Pharmacopoeia 9/2.6.13	Absent in 1g
Salmonella spp.	European Pharmacopoeia 9/2.6.13	Absent in 10g
Enterobacteria	European Pharmacopoeia 9/2.6.13	< 100cfu/g





## Heavy metals

	Method of analysis	Specification Limits
Cadmium	MTD Me.21	<0.05 ppm
Lead	MTD Me.21	<0.2 ppm
Mercury	MTD Me.31	<0.1 ppm
Arsenic	MTD Me.41	<0.05 ppm

## Agrochemicals – agricultural drugs

The starting material used to produce this product is tested for pesticide residues on batch basis and complies with the general requirements of Ph. Eur. for Pesticide Residues

	Method of analysis	Specification Limits
Drugs in Page2,mg/kg	GC & LC – MS/MS	<0.05/ isomer
Dithiocarbamates, mg CS <sub>2</sub> /kg	MTD pest.100	<0.2

(\*)The product is compliant with the requirements of the current Ph. Eur. Monograph for Pesticide Residues.

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QUALITY DPT.

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This product corresponds with the regulations of the European food legislations. This specification is carefully drawn up and represents our current knowledge. However, we are not liable for any damage resulting from wilful acts or gross negligence. We guarantee therefore a proper quality within our general conditions of sales.

