

## PRODUCTION PROCESS

1. The Argan fruits are mature (around June), they are dried.
2. Dried flesh is removed through a machine
3. The resulting nuts are manually crushed between two stones by women in order to obtain an intact almond
4. These almonds are then slightly roasted for culinary oil only ( Arganati )
  - ✓ Temperature : 100°C for roasting machine
  - ✓ 30 kg of almonds need 2 hours for roasting
  - ✓ Although raw material is heated through roasting and extracting process, the peroxides value are definitely under international norms as mentioned in the here enclosed chemical specifications
5. The almonds are then pressed through a special oil press to give argan oil ( the equipment is manufactured in Germany )
  - ✓ Argan oil is made of kernel of argan seeds without any additives.
  - ✓ It is 100% pure natural products
6. The oil is then decanted into bottle and finally filtered in a special oil filter

NB: The ingredients of Argan oil is used only the kernels of Argan seeds. The oil doesn't contain any additives. All our products are certified by ECOCERT as organic ones

## Argan oil specification

Pure and nature argan oil

Parametrs	
Solubility : Insoluble in water , not very ethanol 90°, soluble in Chloroforme and l'hexane	
Density at 20°	
Acidity (expressed as a percentage acidity of oleique acid )	0,906 à 0,916
Indix of peroxyde (en meqO2/Kg)	0.2 à 1
Indix of saponification	0 à 2
% insaponifiable	180-199
	0.5 à 0.9

<p><b>1.1. Acids fat</b></p> <ul style="list-style-type: none"> <li>- Acid myristique (C 14 : 0)</li> <li>- Acid pentadécanoïque (C 15 : 0)</li> <li>- Acid palmitique (C 16 : 0)</li> <li>- Acid palmitoléique (C 16 : 1)</li> <li>- Acid heptadécanoïque (C 17 : 0)</li> <li>- Acid stéarique (C 18 : 0)</li> <li>- Acid oléique (C 18 : 1)</li> <li>- Acid linoléique (C 18 : 2)</li> <li>- Acid linoléique (C 18 : 3)</li> <li>- Acid arachidique (C 20 : 0)</li> <li>- Acid gadoléique (C 20 : 1)</li> <li>- Acide béhénique (C 22 : 0)</li> </ul> <p><b>Acids fat trans</b></p> <p>C18 :1 T</p> <p>C18 :2 T</p>	<p>≤ 0,15</p> <p>≤ 0,05</p> <p>12,0-14,0</p> <p>≤ 0,12</p> <p>≤ 0,10</p> <p>5,0-7,0</p> <p>43,0 - 49,1</p> <p>29,3 - 36,0</p> <p>≤ 0,1</p> <p>0,3-0,5</p> <p>0,4- 0,5</p> <p>≤ 0,2</p> <p>≤ 0,02</p> <p>≤ 0,03</p>
<p><b>Composition in stérols (in % of the total stérols )</b></p> <ul style="list-style-type: none"> <li>- Schottenol</li> <li>- Spinasterol</li> <li>- Δ- 7 - avenastérol</li> <li>- Stigmasta-8,22-dièn-3β-ol</li> <li>- Campesterol</li> <li>- Cholesterol</li> </ul> <p><b>Total Stérols</b></p>	<p>44,0 - 49,0 %</p> <p>34,0 - 44,0 %</p> <p>4,0 - 7,0 %</p> <p>3,2 - 5,7 %</p> <p>≤ 0,4 %</p> <p>≤ 0,4 %</p> <p><b>130-230 mg/100 g</b></p>
<p><b>Composition in tocophérols (in % tocophérols totaux)</b></p> <ul style="list-style-type: none"> <li>- Alpha-tocophérol (vitamine E)</li> <li>- Béta-tocophérol</li> <li>- Gamma-tocophérol</li> <li>- Delta-tocophérol</li> </ul> <p><b>Total Tocophérols</b></p>	<p>4,0 – 9,0 %</p> <p>0,1 - 0,3 %</p> <p>80,0 - 91,0 %</p> <p>5,0 - 10,2 %</p> <p>60 - 90 mg/100 g</p>
<p><b>Alcohols ls triterpéniques</b></p> <p>Alcohols Triterpénique</p> <p>The most frequent are : tirucallol, la β-</p>	<p>130-180 mg/100g</p>

amyrine, le butyrospermol et le lupéol	
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- **Content stigmasta-3,5-diène < 0,05 ppm**
- **Content Benzo-A-pyrene < 0,15 ppb**
- **Acid content palmitic in position 2 in triglycerides < 0,5 %**