

# AAZ ARGAN SARL

## Standard operating procedure (SOP)

### Product: Argan Oil

**INCI CTFA:** Argania Spinosa Kernel Oil

**Custom code:** 151590

**Product use:** Cosmetics, Personal care

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### PRODUCT DESCRIPTION:

Cosmetic argan oil, also known as "liquid gold," is a highly valued natural oil extracted from the kernels of the argan tree, which grows exclusively in southwestern Morocco. Cosmetic argan oil is rich in essential fatty acids, antioxidants, and other beneficial compounds.

Cosmetic argan oil is composed of approximately 80% unsaturated fatty acids, including oleic and linoleic acids, which are known for their moisturizing and nourishing properties. It also contains high levels of tocopherols, or vitamin E, which act as antioxidants and help protect the skin from damage caused by free radicals. In addition, cosmetic argan oil contains squalene, which is a natural emollient that can help improve skin texture and hydration. Other components of the oil include phytosterols, which help reduce inflammation and promote healing, and polyphenols, which have been shown to have anti-aging effects. All of these components work together to make cosmetic argan oil a highly effective ingredient in many skin and hair care products.

In order to maintain the quality and purity of the oil, it is important to follow strict production and shipping protocols, as well as take special care to protect it from light, open air, and other factors that can affect its quality and degradation of its composition.

Bellow a detailed standard operation procedure to follow in order to maintain and preserve the quality of the oil.

## SOP CHART

Steps	Tools	Precaution measures	Don't
<b>1. Harvesting</b>	Ladders, pruning shears, gloves, and baskets	<ul style="list-style-type: none"> <li>-Harvesters should be trained on how to properly climb and prune the trees without damaging them. Gloves should be worn to protect hands from thorns and injuries. Baskets should be lined with a clean cloth to prevent contamination.</li> <li>-Clean and sterilize equipment before use</li> </ul>	<ul style="list-style-type: none"> <li>- Do not use pesticides or any harmful chemicals during the growing process.</li> <li>- Do not harvest the fruits that have fallen on the ground.</li> </ul>
<b>2. Drying</b>	Flat baskets, a clean cloth, and shaded area	<ul style="list-style-type: none"> <li>- Baskets should be lined with a clean cloth to prevent contamination.</li> <li>- Nuts should be placed in a shaded sterilized area to avoid direct sunlight exposure that affects the oil's quality.</li> </ul>	<ul style="list-style-type: none"> <li>- Do not dry the nuts using high heat or direct sunlight, as this affects the oil's quality.</li> <li>- Do not dry the nuts in a dirty or contaminated area.</li> </ul>
<b>3. Cracking</b>	Argan nutcracker	<ul style="list-style-type: none"> <li>- Use clean and sterilized equipment</li> <li>- The nuts should be cracked carefully to avoid damaging the kernels.</li> </ul>	<ul style="list-style-type: none"> <li>- Do not use any tools that can damage the kernels, such as hammers or metal nutcrackers.</li> <li>- Do not use a dirty or contaminated tray for collecting kernels.</li> </ul>
<b>4. Sorting</b>	Sorting machine followed by manual sorting	<ul style="list-style-type: none"> <li>- Use clean and sterilized equipment</li> <li>- Sort and select high-quality nuts</li> </ul>	<ul style="list-style-type: none"> <li>- Don't use damaged or moldy nuts</li> <li>- Don't use contaminated equipment that affects the quality of the oil</li> </ul>
<b>5. Grinding</b>	Mechanical press	<ul style="list-style-type: none"> <li>- Use clean and sterilized equipment</li> <li>- Clean thoroughly before every use to prevent any contamination.</li> </ul>	<ul style="list-style-type: none"> <li>- Do not add any additives or chemicals to the kernels during grinding.</li> <li>- Don't use high temperatures that can cause the oil to lose its nutrients</li> <li>- Don't expose the kernels to oxygen that can cause oxidation</li> </ul>
<b>6. Extraction</b>	Hydraulic press	<ul style="list-style-type: none"> <li>- Use clean and sterilized equipment</li> <li>- Clean thoroughly before every use to prevent any contamination</li> <li>- Operators should wear blouse, gloves and a face mask to prevent contamination and inhalation of fumes.</li> <li>- Use a hydraulic press that does not require solvents</li> <li>- Press the kernels at a low temperature to avoid damaging the oil</li> <li>- Store the oil in a dark-colored glass bottle covered with black shrink to protect it from light</li> </ul>	<ul style="list-style-type: none"> <li>- Do not use solvents or any chemicals during the extraction process.</li> <li>- Don't expose the oil to air, heat, or light that can cause degradation</li> </ul>
<b>7. Multiple filtering</b>	Charcoal filters	<ul style="list-style-type: none"> <li>- Use clean and sterilized equipment</li> <li>- Clean thoroughly before every use to prevent any contamination</li> <li>- The filter should be free of any debris or chemicals.</li> <li>- Operators should wear gloves and use clean tools to avoid contamination.</li> <li>- Remove impurities after each filtering</li> <li>- Store the oil in a cool and dry place to preserve its quality</li> </ul>	<ul style="list-style-type: none"> <li>- Do not use a dirty or contaminated filter.</li> <li>- Do not use filters made of materials that contaminate the oil, such as plastic or synthetic fibers.</li> <li>- Don't store the oil in a warm or humid environment that can cause degradation</li> </ul>

## 8. Storage

Glass or stainless steel IBCs

- The pumps used to fill the IBCs must be sterilized after each use
- The IBCs used for storage should be clean sterilized and free of any chemicals or residues before pouring the oil into it.
- The IBCs must be covered with black shrink to avoid contact with light
- Each IBC must be labeled to indicate type of oil, batch number, production and expiration date for traceability and labs requirements
- The oil should be stored in a cool, dry place to prevent rancidity and spoilage.

- Do not store the oil in containers made of materials that contaminate the oil, such as plastic or rubber.
- Do not expose the oil to direct sunlight or high heat.
- Do not expose to outside elements.

## SHIPPING PRECAUTIONS:

- Proper packaging: Suitable packaging materials to protect the oil from light, heat, and open air. Dark-colored or black shrink wrapped IBCs with airtight caps. Oil can not be exposed to the sunlight for more than 4 hours.
- Temperature control: Argan oil is a delicate product that can be easily affected by temperature changes. To preserve the quality of the oil during shipping, it is recommended to keep the temperature between 18-25°C (64.4-77°F). The oil should not be exposed to extreme temperatures, such as direct sunlight or high heat, as this can cause the oil to oxidize and degradation of its composition.
- Light exposure: Argan oil is sensitive to light exposure. Exposure to light can cause the oil to degrade and lose its beneficial properties. The bottles/containers should be stored in a dark environment, away from any sources of light. Additionally, it's important to avoid exposing the oil to fluorescent or UV light, which can accelerate the degradation process.
- Air contact: Argan oil can be affected by air contact. Exposure to open air can cause the oil to oxidize and become rancid. The packaging should not be open or have any leaks or holes that can allow air to enter.
- Avoid contamination: Ensure that the IBCs are free from contaminants, such as dust or moisture. The oil should also be stored away from any materials with strong odors that could affect its aroma.
- Labeling: Proper labeling is used to indicate the type of oil, its batch number, production and expiration date, to ensure the oil's quality and traceability.
- Shipping arrangements: It is important to ensure that the oil is handled carefully during transport and not subject to rough handling or movement.