



Technical Specifications for:

VEGETABLE OIL – VIRGIN OLIVE OIL

Version: 1

Replacing: Ration Specification V2

Date of issue: 25 June 2021

Key adjustments are:

- Updated product name as per Codex definition
- Updated packaging requirements

1. Introduction

This specification applies to **Virgin Olive Oil** (hereafter called the product) distributed by WFP.

2. Standards and references

Except when specified otherwise in the contract, the product shall comply with latest versions of recognized international standards and best practices and/or guidelines such as:

- CODEX GENERAL PRINCIPLES OF FOOD HYGIENE INCLUDING ANNEX “HAZARD ANALYSIS AND CRITICAL CONTROL POINT (HACCP) SYSTEM AND GUIDELINES FOR ITS APPLICATION” (CXC 1-1969)
- CODEX GENERAL PRINCIPLES FOR ADDITION OF ESSENTIAL NUTRIENTS TO FOODS (CXG 9-1987)
- CODEX GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD AND FEED (CXS 193- 1995)
- CODEX GENERAL STANDARD FOR FOOD ADDITIVES (CXS 192-1995)
- CODEX GENERAL STANDARD FOR THE LABELLING OF PREPACKED FOODS (CXS 1-1985)
- CODEX STANDARD FOR OLIVE OILS AND OLIVE POMACE OILS (CXS 33-1981)

Additionally, the supplier shall comply with relevant local regulations/standards of the food originating and recipient countries.

3. RAW MATERIALS

Product shall be manufactured from ingredients that are fresh, of good quality, free from foreign materials and substances hazardous to health, that comply with Codex Alimentarius and relevant food laws and standards of the originating and recipient countries. The quality of raw materials should be adequate so that the final product will meet all requirements specified in this document. Specific requirements for the raw materials are:

4. PROCESSING

4.1 Food safety and risk assessment at manufacturing premises

For compliance with Codex standards, the processor shall be able to demonstrate by principle and practice the adoption, implementation and recording of:

- Good Manufacturing Practice
- Hazard Analysis Critical Control Point program
- Global Food Safety Initiative (GFSI) scheme

In this context an appointed WFP staff/ WFP appointed Inspector / Quality Surveyor is entitled to visit the factory without prior notice during any period when WFP product is being manufactured to check that production is done as per WFP contract specification. The Inspector / Quality Surveyor may request to see:

- **Records** (i.e. names of people in charge of the process and quality control, temperatures of the process, mixing times / net contents, cleaning schedules, CCP monitoring, traceability etc.).
- **Procedures** (e.g. cleaning, personnel hygiene, risk assessment and HACCP, environmental monitoring programme, sampling & analysis, product release and control of non-conformance etc.).
- **Instructions** (e.g. process instructions, cleaning instructions, zoning instructions etc.).
- The **quality manual** for the process or factory.
- Conditions in the factory (process rooms, warehouses, laboratories, cloakrooms, factory grounds, utility rooms, etc.)

5. Product Specifications

5.1 General requirements

The product shall comply with requirements stated in Table 1 of this document.

5.2 Contaminants

The product shall be free from contaminants in amounts which may represent a hazard to health. The product shall comply with those maximum contaminant limits established by the Codex Alimentarius for this commodity. This includes compliance with Codex General Standard for Contaminants and Toxins in Food and Feed (CXS 193-1995) and Codex Maximum Residue Limits for pesticide residues. Additionally, the product shall contain maximum 1ppm of Glycidyl fatty acid esters.

5.3 Hygiene

It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969), and other Codes of Practice recommended by the Codex Alimentarius Commission which are relevant to these products. To the extent possible in good manufacturing practice, the products shall be free from objectionable matter. When tested by appropriate methods of sampling and examination, the product:

- shall be free from micro-organisms in amounts which may represent a hazard to health;
- shall be free from parasites which may represent a hazard to health; and
- shall not contain any substance originating from micro-organisms in amounts which may represent a hazard to health.

5.4 Shelf life

The shelf life requirement shall be as per contract. The supplier should conduct its own shelf life studies using methods in line with WFP shelf life study requirements¹.

5.5 Fit for human consumption guarantee

Suppliers shall have to check the quality of their products and guarantee that the product is 'fit for human consumption', in line with International Federation of Inspection Agencies requirements.

6. Packaging and Marking

¹ <https://foodqualityandsafety.wfp.org>

Food shall be packed in a suitable container complying with the packaging and marking requirements separately available under "Vegetable oil packaging technical specification" on <http://foodqualityandsafety.wfp.org/specifications> Additionally, the labelling shall comply with the General Standard for the Labelling of Prepackaged Foods (CXS 1-1985). Weight and quantity tolerance must meet The International Organization of Legal Metrology International Recommendation OIML R 87².

7. Storing

The product shall be stored under dry, ventilated and hygienic conditions and away from direct sunlight.

8. Analytical Requirements

As per contractual agreement, WFP can appoint an inspection company to check that the food matches requirements of this specification. Analytical tests in table 1 are usually utilized, and additional tests might be performed. Suppliers shall follow its own food safety and quality management plan. WFP reserves the rights to change the testing plan at any time.

Table 1: List of compulsory tests and reference method

No.	Tests	Requirements	Reference methods (latest versions) ³
1	Organoleptic characteristics	- Colour, odour and taste must be characteristic of the designated product - Free from foreign and rancid odour and taste	Organoleptic examination
2	Moisture and volatile matter	MAX. 0.2 %, m/m	ISO 662
3	Insoluble impurities	MAX. 0.1 %, m/m	ISO 663
4	Halogenated solvents	MAX. 0.2 mg/kg	ISO 16035
5	Free acidity	MAX. 1.0 %, m/m, expressed as oleic acid	ISO 660
6	Wax	MAX. 250 mg/kg	ISO/TS 23647
7	Absorbency in ultra-violet (at 270 nm)	MAX. 0.25	ISO 3656
8	Peroxide value	MAX. 20.0 milliequivalents of active oxygen/kg oil	ISO 3960
9	Saponification value	184 - 196 mg KOH/g oil	ISO 3657
10	Iodine value	75-94 g/100g oil	ISO 3961
11	Unsaponifiable matter	MAX. 1.5 % m/m	ISO 18609
12	Refractive index (ND 20°C)	1.4677-1.4705	ISO 6320
13	Relative density (20°C /water at 20°C)	0.910 - 0.916	AOCS 10c-95
14	Iron	MAX. 3.0 mg/kg	ISO 8294
15	Copper	MAX. 0.1 mg/kg	
16	Total sterols	MIN. 1000mg/kg	COI/T.20/ Doc. No 26
17	Vitamin A	24000 - 36000 IU/kg oil	AOAC 2001.13
18	Vitamin D	2400- 3600 IU/kg oil	AOAC 2002.05

² OIML R 87 Quantity of commodity in prepackages https://www.oiml.org/en/files/pdf_r/r087-e04.pdf, latest edition to be followed

³ or equivalent validated methods