FORTIFIED SUNFLOWER OIL

1. Specifications:

The Sunflower Oil is to be in accordance with the following specifications:

General Description of Fortified SUNFLOWER OIL : The product shall be fortified with micronutrients fortified with Vitamin A and D and fit for human consumption. Shall be safe, free of abnormal and rancid odors, clear and free from any other oils, especially mineral oil. The product shall meet the testing requirements stated in this document.		
Parameter	**Requirements**	**Reference methods (or equivalent)**
Free fatty acids	**0.15% max. (oleic acid)**	**ISO 660**
Linolenic acid	**0.7 % max.**	
Sediment	**Nil**	
Moisture and other impurities	**0.2% max.**	**ISO 662**
Adulterants	**Nil**	
Rancidity	**Nil**	
Arsenic (Total)	**0.1 max.**	**AOAC 963.21**
Saponification value (mg KOH/g oil)	**188-194**	**ISO 3657** **AOCS Cd 3-25**
Vitamin A	**4000 µg (13,332 IU) max. (RE/100g)**	**EN 12823-1:2014**
Vitamin D	**69 µg (2760 IU) max. /100 g**	**EN 12821-1:2009**
Iodine No. (Wijs)	**110-143**	**ISO 3961**
Organoleptic properties	**Satisfactory**	**organoleptic evaluation**
Specific gravity	**0.910-0.923**	
Natural or refined	**Refined only**	
Delta-7-stigmasterol	**9% min. (of total sterol content and absence of brassicasterol)**	
Soap	**Absence**	
Foreign odours or flavours	**Absence**	
Peroxide number	**Below 10 milliequivalents of active oxygen per kg of oil**	**ISO 3960:2017** **BS 684-2.14:2001** **AOCS Cd 8b-90**

		AOAC 965.33; IUPAC 2.501
Authorized additives:		
Butylated hydroxyanisole (BHA)	**175 mg / kg max.**	
Butylated hydroxytoluene (BHT)	**75 mg/ kg max.**	
Tertiary Butyl Hydroquione (TBHQ)**	**120 mg / kg max.**	
Any combination of gallates, BHA, BHT, or TBHQ	**200 mg/kg max. within individual limit**	
Reactive index at 40C°	**1.467-1.469**	**ISO 6320**

* N.B.: The food commodity must not be derived from biotechnology. Suppliers must ensure that food commodities are brought in from countries whose health status allows this.

** The manufacturers shall conform use & labelling of other additives i.e synergists and antifoaming agents as per Codex STAN 210-1999

2. <u>TECHNICAL DOCUMENT REQUIREMENTS:</u>

When required, suppliers shall submit a Certificate of Analysis of the final product to UNRWA, along with other documents

3. <u>Food safety and quality management at manufacturing premises</u>

- The manufacturer shall be able to demonstrate by principle and practice the adoption, implementation and recording of:
  - Good Manufacturing Practices (GMPs)
  - Good Hygiene Practices (GHPs)
  - Hazard Analysis Critical Control Point Program (HACCP)
  - Global Food Safety Initiative (GFSI) scheme principles
- In this context an appointed UNRWA staff/Quantity & Quality Inspector/Surveyor/Auditor is entitled to visit the factory without prior notice during any period when UNRWA product is being manufactured to check that production is done as per UNRWA contract specifications.
- The UNRWA staff/Inspector/Surveyor/Auditors may examine any aspect of Supplier's manufacturing premises and its documentation relating to any products or services provided to UNRWA, including but not limited to production facilities, procedures, records, certifications, or practices.
- Food suppliers shall notify UNRWA immediately of lots (pre-delivery and post-delivery) that fail to meet contract requirements. Any testing on food safety

parameters for foods (and/or the associated raw materials) delivered to UNRWA shall be pre-agreed with UNRWA.

- The producer shall be authorized by competent governmental authorities to process products for human consumption and to export. The authorization of export is only required when the producer supplies UNRWA internationally.

4. <u>PRODUCT SAFETY:</u>

- The product shall not contain any harmful substances including, but not limited to, micro-organisms, heavy metals, pesticides, mycotoxin, foreign matter or anti-nutritional factors, in amounts that may represent a hazard to health. Where there is no applicable standard available, The Joint FAO/WHO Expert Committee on Food Additives (JECFA) and The European Food Safety Authority (EFSA) evaluations shall be considered for guidance limits.
- Fit for human consumption guarantee: Suppliers shall manage the quality of their product and guarantee that the product is 'fit for human consumption' and in line with TIC Council/IFIA Guidelines.
- The product shall comply strictly with Codex General Standard for Contaminants and Toxins in Food and Feed (CXS193-1995), Codex Maximum Residue Limits (MRLs) and Codex Extraneous Maximum Residue Limits (EMRLs) for Pesticides, Codex Maximum Residue Limits (MRLs) for Residues of Veterinary Drugs in foods (CX/MRL 2-2021) and Guidelines of International Commission on Microbiological Specifications for Foods.
- Supply food stuff form producers or companies registered in white list of NFSA (NATIONAL FOOD SAFETY AUTHORITY).

5. <u>Packing:</u>

The sunflower oil shall be packed in new plastic containers to be of robust type each containing 1 liter, properly capped, capable of protecting the product. The containers shall be completely filled and hermetically sealed in an atmosphere of nitrogen. The label shall show clearly the product name, the name and address of the packer, the production and expiration dates. The outer carton thickness must be 3 plys.

*UNIT OF PACKING AS AGREED IN CONTRACT

6. <u>MARKING:</u> SEE ATTACHED SPECIAL CONDITIONS OF CONTRACT.

All the above specifications will be strictly adhered at Field level.

7. <u>SHELF LIFE</u>

The product shall have a minimum of 80% of shelf-life remaining when presented to UNRWA for inspection, unless otherwise authorized by UNRWA.

Shelf-Life duration: at least 12 months