

Project Description: Organic Sunflower Oil Accelerated Shelf Life Study
Report Issued To: Carbon60, Inc
 8156 South Wadsworth Blvd.
 Littleton, CO 80128
Contact: Sam Greska

Certificate of Analysis

AEMTEK #: 1901916

Sampling Date: 2019-01-15
Sample Received: 2019-01-18
Analysis Started: 2019-01-21
Analysis Performed By: JC, HS, TD, MM, KN, LA,
 External Lab
Report Issue Date: 2019-09-05

Analyte	Organoleptic Evaluation - Odor	Organoleptic Evaluation - Color	Organoleptic Evaluation - Syneresis	Organoleptic Evaluation - Taste	Organoleptic Evaluation - Conclusion	
Method	Sensory evaluation as compared to initial sample	Sensory evaluation as compared to initial sample	Sensory evaluation as compared to initial sample	Sensory evaluation as compared to initial sample	Sensory evaluation as compared to initial sample	
Reporting Unit	N/A	N/A	N/A	N/A	N/A	
Method Detection Limit for Reporting	1 = Normal odor; 2 = Slight off-odor; 3 = Moderate off-odor; 4 = Strong off-odor	1 = Normal color; 2 = Slight discoloring; 3 = Moderate discoloring; 4 = Pronounced discoloring	1 = Normal appearance; 2 = Slight dryness or watery/oily separation; 3 = Moderate dryness or watery/oily separation; 4 = Pronounced dryness or watery/oily separation	1 = Normal/fresh taste; 2 = Slight rancidity/spoilage; 3 = Moderate rancidity/spoilage; 4 = Pronounced rancidity/spoilage	General sensory evaluation and observation of spoilage indicators	
Sample ID	Sample ID	RESULTS				
Month 0 - Tested 01/21/2019	Organic Sunflower Oil	1- No detectable odor. Normal and typical of product	1- Dark gray, almost black in color. Typical of product, no discoloration	1- No separation within product. Normal and typical of product	1- No detectable flavors. Normal and typical of product	Baseline
Month 1 - Tested 02/21/2019	Organic Sunflower Oil	1- No detectable odor. Normal and typical of product	1- Dark gray, almost black in color. Typical of product, no discoloration	1- No separation within product. Normal and typical of product	1- No detectable flavors. Normal and typical of product	Acceptable
Month 2 - Tested 03/21/2019	Organic Sunflower Oil	1- No detectable odor. Normal and typical of product	1- Dark gray, almost black in color. Typical of product, no discoloration	1- No separation within product. Normal and typical of product	1- No detectable flavors. Normal and typical of product	Acceptable
Month 3 - Tested 04/21/2019	Organic Sunflower Oil	1- No detectable odor. Normal and typical of product	1- Dark gray, almost black in color. Typical of product, no discoloration	1- No separation within product. Normal and typical of product	1- No detectable flavors. Normal and typical of product	Acceptable
Month 4 - Tested 05/21/2019	Organic Sunflower Oil	2- Slight stale and off odors from product	1- Dark gray, almost black in color. Typical of product, no discoloration	1- No separation within product. Normal and typical of product	2- Slight off and stale flavors from product	Slight change in odor and taste attribute, otherwise acceptable
Month 5 - Tested 06/21/2019	Organic Sunflower Oil	2- Slight stale and off odors from product	1- Dark gray, almost black in color. Typical of product, no discoloration	1- No separation within product. Normal and typical of product	2- Slight off and stale flavors from product	Slight change in odor and taste attribute, otherwise acceptable
Month 6 - Tested 07/21/2019	Organic Sunflower Oil	2- Slight stale and off odors from product	1- Dark gray, almost black in color. Typical of product, no discoloration	1- No separation within product. Normal and typical of product	2- Slight off and stale flavors from product	Slight change in odor and taste attribute, otherwise acceptable
Month 7 - Tested 08/21/2019	Organic Sunflower Oil	2- Slight stale and off odors from product	1- Dark gray, almost black in color. Typical of product, no discoloration	1- No separation within product. Normal and typical of product	3- Pronounced stale flavors. No other observable changes	Moderate change in taste attribute with slight change in odor attribute

Terminology: CFU = Colony Forming Units g = gram
 < Indicates less than the reporting limit as noted
 ND = Not Detected, negative, absent. Sensitivity is about 1 organism per test portion.
 BAM = FDA Bacteriological Analytical Manual
 AOAC OMA = Official Methods of Analysis of the AOAC International, 18th ed.

MPN = Most Probable Number
 P/A = Presence/Absence N/A = Not Applicable or not analyzed
 CP Staph = Coagulase Positive Staphylococci (Staphylococcus aureus)
 CMMEF = Compendium of Methods for the Microbiological Examination of Foods, 4th ed.
 AOAC RI = AOAC Research Institute Performance Tested.