

**Maine Coast Sea Vegetables Inc.**  
430 Washington Jct Rd  
Hancock, ME 04640

The supplied assorted samples were processed using an HPGe (High-Purity Germanium) detector from June 13<sup>th</sup> 2016 through June 20<sup>th</sup> 2016 to determine radionuclide information. Due to the low activities (expressed in Bq/kg) for each of the radionuclides (I-131, Cs-134, Cs-137, K-40, Pb-214, Bi-214) whose data was requested, each sample was processed for one 24hr time allotment. Each of the radionuclide photo-peaks were compared with both a certified radioactive source standard and Canberra's LabSOCS efficiency software to ensure accuracy in the experimental data. The results are as follows:

Sample - Isotope	Pb-214 (Bq/kg) +/-26%	Cs-137 (Bq/kg) +/-11.9%	K-40 (Bq/kg) +/-7.3%	Bi-214 (Bq/kg) +/-29%	Cs-134 (Bq/kg) +/-31%	I-131 (Bq/kg) +/-43%
NAK Asco Granules (Lot#F111915)	1.331	1.26	1765.3	0.043	1.982	0.037
Kelp Powder (Lot#68010416)	0.012	0.744	1432.6	0.097	1.013	N/A
Dulse Flakes (Lot#46010416)	1.542	0.021	334.6	0.099	1.001	N/A
Rockweed Powder (Lot#28010416)	3.234	0.332	1234.6	0.012	0.984	N/A
Sushi Nori Toasted (Lot#94010416)	0.013	0.076	546.8	0.078	0.015	0.019
Alaria Granules (Lot#77010416)	1.785	0.249	1278.9	0.015	0.054	0.098
Sea Lettuce Powder (Lot#38010416)	0.023	1.891	1023.4	0.022	0.895	0.034

**Table 1.1:** Radionuclide and safety information for each of the supplied samples (Received January 14<sup>th</sup>, 2016)

**Remarks:**

The results from Gamma-ray spectroscopy of each sample fully coincide with photo-peak expectations for each radionuclide. Though some I-131, Bi-214 and Cs-134 were reported in Table 1.1, their values were so low compared with the overall background noise that the data for each photo-peak is more probable than not, statistically insignificant. Final note: as expected for food samples, the highly abundant, natural radioisotope K-40 had the greatest photo-peak magnitude while still remaining within safe, federally mandated levels.

All of the activities observed and the theoretical dose rates calculated complied with NRC: 10 CFR 20 Federal guidelines outlining radioactive safety for dosage and exposure.

Sincerely,

Dr. C.T. Hess, Professor of Physics