



General Specifications of NaturAsta Natural Astaxanthin (*Haematococcus algae meal*)

1) Classification

NaturAsta is also known as “*Haematococcus algae meal*” *Haematococcus pluvialis* is classified as:

Phylum:	Chlorophyta
Class:	Chlorophyceae
Order:	Volvocales
Family:	Haematococcaceae
Genus:	Haematococcus
Species:	pluvialis

2) Physical Properties

Color	Brownish red to Dark red
Particle size	2-65 microns
Bulk density	
loose value	0.303-0.345 g/ml
tapped value	0.370-0.435 g/ml

3) Microbial Specifications

Microbial contamination is tested using the AOAC Official Method 990.12, Aerobic Plate Count in Foods, Petrifilm Aerobic Count Plate Method. Coliforms are tested using the AOAC Official Method 966.24, Coliform Group and *Escherichia coli* in Tree Nut meats, Microbiological Method. The microbial specifications and quantitative analytical procedures for microbes in *Haematococcus algae meal* are in accordance with the normal quantitative range for raw cereal grains, listed below (Hobbs and Greene, 1984).

Molds	10²-10⁴/gram
Yeast and yeast-like fungi	10²-10⁴/gram
Bacteria	
aerobic plate count	10²-10⁶/gram
coliform group	10²-10⁴/gram
<i>E. Coli</i>	10-10³/gram
Actinomycetes	10³-10⁶/gram



4) Contaminants

Heavy Metals (as lead),	<10.0 mg/kg
Mercury	<1.0 mg/kg
Arsenic	<5.0 mg/kg
Lead	<10.0 mg/kg

5) General Specifications

<u>Component</u>	<u>Percentage</u>
Astaxanthin	>2.0%
Protein	14-30%
Carbohydrates	30-40%
Fat	7-25%
Ash	5-15%
Moisture	2-7%

Hobbs W.E. and V.W. Greene. 1984. Compendium of methods for the microbiological examination of food. Speck, M. L., ed., Second Edition, American Public Health Association Washington D.C. Chapter 51:Cereal and cereal products:690-699.

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