

| Thorvin for Animals – Specifications | | | |
|--------------------------------------|---|--|--|
| Certified 100% Organic | | | |
| PRODUCT DESCRIPTION | | | |
| Species | Ascophyllum nodosum | | |
| Plant Part | Milled Sea Vegetation (stems, leaves) | | |
| Processing Method | Sustainable harvest, controlled geothermal low-temperature drying | | |
| Primary Active | Phytonutrients, Iodine and other micronutrients | | |
| Particle Size | Granules (10/70 mesh) and powder (70 mesh) | | |
| Color | Green | | |
| Aroma | Mild marine odor | | |
| Taste | Salty | | |
| Storage | Dry area | | |
| Shelf Life | Best used within 36-months | | |
| Packaging | 50 or 55-lb. Kraft bag, or in bulk tote | | |
| Certificates | Certified 100% Organic by OAI | | |

| Analysis | | | | |
|-------------------|----------------------|-------------------|---------------|--|
| Activity | 600 – 1200 ppm (0.06 | – 0.12%) lodine | | |
| Moisture | NMT 10% | | Test Methods | |
| Ash | NMT 45% | | | |
| Lead | NMT 5 ppm | | ICP-MS | |
| Inorganic Arsenic | NMT 1 ppm | | IC-ICP-MS | |
| Cadmium | NMT 2.0 ppm | | ICP-MS | |
| Mercury | NMT 0.05 ppm | | ICP-MS | |
| Microbial | Aerobic Plate Count | <10,000 CFU/g | FDA BAM 3 | |
| | Total Coliform | <1,000 CFU/g | CMMEF 8.7 | |
| | E. coli | N/D (<3 CFU/g) | BAM 4 | |
| | Salmonella | Negative (ND/50g) | AOAC-RI960801 | |
| | Yeast/Mold | <5,000 CFU/g | CMMEF 20.5 | |

Thorvin contains over 60 minerals, vitamins, amino acids, and beneficial phytonutrients.

Thorvin is a 100% natural organic marine algae product; therefore, a specific laboratory analysis may vary from the typical analysis due to naturally occurring fluctuations in the seaplant. The information presented above is believed to be accurate and reliable; however, Thorvin, Inc. makes no warranty, either express or implied, and assumes no liability for this information and the product described herein. These are averages and are not guaranteed as conditions of sale.

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Thorvin for Animals – Typical Analysis

| Ge | neral (A | verage %) |
|---------------------------------------|----------|-----------|
| Moisture | | 9.0 |
| Protein | | 8.5 |
| Crude Fiber | | 4.0 |
| Total Ash (minerals) | | 29.0 |
| Fat | | 2.0 |
| Carbohydrates (Nitrogen-free extracts | 5) | 47.5 |
| | Total | 100.0 |

| Macronutrients (%) | | | |
|--------------------|------------|------|--|
| Ca | Calcium | 2.1 | |
| Cl | Chlorine | 6.5 | |
| K | Potassium | 2.7 | |
| Mg | Magnesium | 0.85 | |
| N | Nitrogen | 1.4 | |
| Na | Sodium | 4.0 | |
| Р | Phosphorus | 0.3 | |
| S | Sulfur | 2.8 | |

| VITAMINS | | |
|------------------|--|--|
| Retinol | 390 ppb | |
| Riboflavin | 4.9 ppm | |
| Niacin | 182.6 ppm | |
| Ascorbic Acid | 375 ppm | |
| Cholcalciferol | 150 ppb | |
| Alpha-tocopherol | 110 ppm | |
| | Retinol Riboflavin Niacin Ascorbic Acid Cholcalciferol | |

| Micronutrients (PPM) | | | |
|----------------------|------------|-----|--|
| Αl | Aluminum | 289 | |
| В | Boron | 98 | |
| Co | Cobalt | 4 | |
| Cr | Chromium | 0.8 | |
| Cu | Copper | 4 | |
| Fe | Iron | 622 | |
| 1 | Iodine | 780 | |
| Mn | Manganese | 60 | |
| Mo | Molybdenum | 2 | |
| Se | Selenium | 0.5 | |
| Sn | Tin | 6.5 | |
| Zn | Zinc | 12 | |
| | | | |
| | | | |
| | | | |

| AMINO ACIDS (% OF TOTAL AMINO ACIDS) | | | | |
|--------------------------------------|-------|---------------|------|--|
| Alanine | 5.52 | Lysine | 4.24 | |
| Arginine | 5.47 | Methionine | 1.07 | |
| Aspartic Acid | 9.88 | Phenylalanine | 3.54 | |
| Cystine | 1.49 | Proline | 3.71 | |
| Glycine | 5.70 | Serine | 4.92 | |
| Glutamic Acid | 12.03 | Threonine | 4.60 | |
| Histidine | 1.29 | Tryptophan | 1.68 | |
| Isoleucine | 3.26 | Tyrosine | 3.52 | |
| Leucine | 5.63 | Valine | 3.51 | |

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Ingredients: Dried Kelp* (Ascophyllum nodosum)

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^{*}USDA Certified 100% Organic