NICKEL

Micronutrient

Guaranteed Analysis

Nickel (Ni)..... 10.00%
Sulfur (S) 6.00%

Derived From:
Nickel Sulfate.

Also Contains Non-Plant Food Ingredient:
0.5% Organic Matter (derived from leonardite)

Physical Properties:
Form: Liquid
Appearance: Clear to slightly hazy, dark bluish green, with a characteristic odor.
Weight: 10.60 lb/gal, 1.20 kg/L
pH: 1.0–2.0

Caution:
Keep out of reach of children.
Harmful if swallowed. Ingesting this product can be harmful or possibly fatal even if swallowed in a relatively small amount.
The vapors, mists and liquid may be irritating or corrosive to all tissues contacted. Inhalation of mists may cause severe irritation or burns to the entire respiratory tract.

Storage and Disposal:
Keep product in original container. Do not transfer into food or drink containers. Triple rinse when empty for recycling. Always dispose of container in accordance with local, state, and/or federal regulations. Do not store this product below 50°F (10°C) or above 90°F (30°C).

Conditions of Sale:
The information contained in this bulletin is believed to be accurate and reliable. Buyer and user acknowledge and assume all liability resulting from the use of this material. Follow directions carefully. Timing, method of application, weather, crop conditions, and other factors are beyond the control of the seller.

The Solution for Improved Nickel Nutrition in Plants

Huma Gro® NICKEL carbon-complexed with Micro Carbon Technology® is a critical source of nickel, which is necessary in the production of various tree, vine, and nut crops. Nickel is an irreplaceable constituent of the urease enzyme, essential in converting urea to ammonium (NH_4^+). When Nickel is insufficient and urea is the major source of nitrogen, urea can accumulate in leaves to the point of plant toxicity—manifested as necrosis of leaf tips.

Benefits of Use:

- Protects plants against urea toxicity
- Involved in the synthesis of chemicals (phytoalexins) that plants produce to defend themselves against environmental stresses
- Contributes to lignin production, a component of cell walls that strengthens plants and contributes to disease resistance

Deficiency Symptoms—When to Apply:

- Discernible Nickel deficiency is most likely to occur in solution culture, in high-pH soils, where roots have been damaged by nematodes, or where excessive amounts of Fe, Zn, or Cu have been applied.
- Necrosis of leaf tips due to the accumulation of urea to toxic concentrations.
- For non-woody plants, chlorosis of young leaves, reduced leaf size, and less upright leaf growth
- In pecan trees, a rounding or blunting of the leaflet tips and dwarfing of foliage to produce what is called "mouse ear" or "little leaf"; deficiency symptoms appear when Nickel concentrations in the tissue fall below 1 ppm

Application Instructions:
Contents are highly concentrated and must be diluted with water in a ratio of at least 20 parts water to 1 part product prior to foliar application. See table below for specific rate instructions. SHAKE WELL BEFORE USING.

METHOD OF APPLICATION	SUGGESTED RATE Field Crops	SUGGESTED RATE Tree or Vine Crops
Foliar band application at 50% coverage	Up to 1 cup/acre, 650 mL/hectare	—
Foliar broadcast or sprinklers: solid, set, pivot, linear (100% speed)	Up to 1 pint/acre, 1.25 liters/hectare	Up to 1 quart/acre, 2.5 liters/hectare
Soil banded or injected, through drip tape or micro sprinklers	Up to 1 pint/acre, 1.25 liters/hectare	Up to 1 quart/acre, 2.5 liters/hectare
Soil broadcast spray incorporated, flood or furrow irrigated	Up to 1 quart/acre, 2.5 liters/hectare	Up to 2 quarts/acre, 5 liters/hectare

Powered by MICRO CARBON TECHNOLOGY

**This Product Contains Micro Carbon Technology®, a proprietary blend of very small organic molecules that allows for more effective absorption of nutrients by plants.*

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