



# Nodulator® Inoculant

# Granular Inoculant for In-Furrow Application for Peas and Lentils

#### **CONTAINS NONPLANT FOOD INGREDIENTS**

Soil Amending Guaranteed Analysis

**Active Ingredient:** 

Rhizobium leguminosarium biovar viciae...... 1x108 Colony Forming Units per Gram

# FOR PROFESSIONAL USE ONLY Keep Out of Reach of Children

This product does not require a hazard warning in accordance with GHS criteria.

#### **Net Contents:**

BASF Corporation 26 Davis Drive, Research Triangle Park, NC 27709 **Nodulator®** granular inoculant for peas and lentils is a pelletized, peat-based product intended to be applied in the furrow with the seed. It contains a unique, highly effective strain of nitrogen-fixing bacteria that will colonize the plant roots to gather and fix nitrogen from the atmosphere in a form available to the plants.

#### **Directions For Use**

This product is designed to be added to the soil with the seed in the furrow. It is not a seed application. In-furrow placement of the inoculant allows a large number of *rhizobia* to be applied directly to the root zone where it is more protected from the killing effects of high surface soil temperatures, dry soil conditions and chemical treatments. Nodulator is applied in-furrow at planting time through granular applicator boxes or through air seeder equipment from a tank separate from the seed tank for uniform distribution in the seed furrow. A greater amount of bacteria can be applied to the root zone in this manner. Since both seed and bacteria are placed in the seed furrow, a protective environment, the bacteria have a greater chance of survival.

Drill granular inoculant directly below the seed in furrow. Consult your equipment owner's manual or manufacturer's representative for proper equipment calibration instructions. For highest accuracy, perform

an in-field distance calibration with your application equipment. Increased rates of granular inoculant may be beneficial, especially in problem soils. Overapplication will not have any harmful effects.

#### **Handling Precautions**

- This product contains live microorganisms and may cause adverse effects to sensitive individuals.
- If exposed to product dust, wear a NIOSHapproved (or equivalent) particulate respirator.
- Wash hands after using.

#### Special notes

- DO NOT allow product to get wet or dry out.
  Granular inoculant will tend to compact in heavy, humid and damp weather due to moisture absorption.
- DO NOT fill the boxes or tanks too full.
- Feeding mechanism should be cleaned often to ensure good flow.
- Remove the unused material at the end of each day and replace in polyethylene-lined bag. Close tightly.
- Once opened, use product within 24 hours.
- **DO NOT** use inoculant that is passed its expiration date or that has not been stored correctly.
- Unless otherwise directed, DO NOT mix inoculant with fertilizers or pesticides.

Width of row in inches	Row feet per acre	Nodulator per 1000 row feet	Rate of Nodulator pounds per acre	Acres inoculated per 40 lb bag	Acres inoculated per 520 lb bag
38"	13,755	6 oz	5.2	7.6	100.1
36"	14,517	6 oz	5.4	7.4	94.9
32"	16,335	6 oz	6.1	6.5	84.5
30"	17,424	6 oz	6.5	6.1	80.6
20"	26,145	6 oz	9.8	4.0	85.0
15"	34,848	6 oz	13.1	3.0	40.3
For drilled legumes use at least 6.5 lbs/acre.					

### **Storage and Disposal**

Storage: Segregate from foods and animal feeds. Inoculants are live organisms. Keep inoculant as cool as possible. Keep only in the original container in a cool, dry, well ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Store product on a pallet to prevent direct contact with the floor. DO NOT stack more than 2 pallets high. Protect against contamination. Protect from heat and cold. Avoid freezing. Protect from temperatures below 1°C (34°F) and above 20°C (70°F). Changes in the properties of the product may occur if substance/product is stored outside the indicated temperature for extended periods of time. For more uniform temperature control, store at floor level.

**Waste Disposal of Substance:** Must be disposed of or incinerated in accordance with local regulations. **Container Disposal:** Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

Accidental Release Measures: DO NOT discharge into the subsoil/soil. DO NOT discharge into drains/surface waters/groundwater. For small amounts: Contain with dust binding material and dispose of. For large amounts: Sweep/shovel up. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Avoid raising dust.

#### State Right To Know Description and CAS # / TSRN

Proprietary compound / TSRN 161090809-5100; Naturally occurring active ingredient / TSRN 161090809-5935

EMERGENCY CONTACT: CHEMTREC 1-800-424-9300 BASF Corporation 1-800-832-HELP (4357)

## **Conditions of Sale and Warranty**

The Directions For Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer. BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions For Use, subject to the inherent risks, referred to above. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER **EXPRESS OR IMPLIED WARRANTY OF FITNESS OR** MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL. EXEMPLARY. SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing Conditions of Sale and Warranty which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

Limitations of Use: Any purchaser or user agrees to handle and/or use this product in strict conformity with all limitations of use, including the prohibition of analyzing for content, disassembling, extracting, purifying, or otherwise obtaining any material, for any use whatsoever, from the product in any form. This prohibition specifically includes the growing or culturing of any material for further use of such material (or any progeny thereof) for ANY use whatsoever. User agrees that this product will only be used as instructed on the product label and only for the crop and purpose stated therein.

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