Our Top-Selling Degradable Sulfur



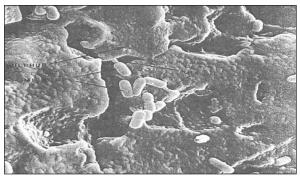
**0-0-090 BENTONITE SULFUR FERTILIZER**FORMERLY SOLD AS NUTRASUL 90

### **Consistently Reliable Performance**

Made with only the highest-quality bentonite clay, Keg90S™ delivers optimal degradability for improved nutritional benefits. Exceptional dust control makes Keg90S™ a trusted choice for superior safety, handling and storage.

#### Benefits of Keg90S™

- **High sulfur analysis reduces input costs** of transportation, storage and handling
- · Season-long sulfur nutrient availability
- Low salt index: seed-safe even when placed in the seed row
- Low risk of leaching vs. sulfates; also reduces nitrate leaching
- Superior dust control less airborne dust for improved safety and cleaner handling
- Replacing bulky, high salt index AS in spring blends with fall, winter (even on snow), spring or post-seeding
- Keg90S™ broadcasting, provides agronomic, economic and logistical benefits
- Ability to select nitrogen source
- Effective in soil amendment for correcting alkali and saline alkali soils – one of the best options for lowering soil pH

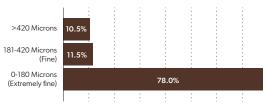


Thiobacillus bacteria attached to Sulfur

# Fast, Complete Degradability and Conversion to Plant-Available Sulfate

Bentonite clay is activated by water to swell, which breaks down the pastilles. By using the highest quality bentonite clay, Keg90S™ ensures fast, consistent breakdown. This exposes a larger surface area for microbial activity to occur — resulting in rapid oxidation to sulfate.

#### Keg90S™ Degradability



Sample from Bin #2 on Jan. 8, 2021-20g sample and 10ml water for 24 hrs.

### **Analysis of Degraded Samples:**

- Samples are disintegrated in water for 24 hours
- Sieve sifting analysis for day-to-day use and uses Laser Diffraction analysis for specific sampling.
- 0-180 micron size: very fine powder likely available as Sulfate through the first year (to 0.2 mm or 0.008")
- Average of 78% of samples disintegrated to less than 80 mesh (less than 80 microns)
- Result is the right mix of particle sizes for season long conversion of sulfur to sulfate



# KEG RIVER SULFUR SPECIFICATIONS

### SULFUR — THE 4TH MAJOR MACRONUTRIENT

- Vital to crop yield and quality
- Essential to photosynthesis
- Promotes efficient absorption and metabolism of NPK
- Required for synthetic and catalytic plant reactions

#### **APPLICATION RECOMMENDATIONS**

- Applied alone or blended with other fertilizers
- Application rate is based on agronomic recommendations from soil tests & crop removal rates of sulfur
- If soil is sulfur-deficient, soluble sulfate should be applied to crops requiring early-season sulfate (e.g. oil seeds and legumes)
- Keg90S<sup>™</sup> can be banded or broadcasted; broadcasting in the fall has the benefit of exposing pastilles to freeze-thaw and moisture over winter for more thorough disintegration
- Repeat applications of Keg90S™ result in the improvement of soil populations of sulfur processing bacteria—the soil becomes more efficient in processing sulfur to sulfate

# SAFETY CONSIDERATIONS FOR FERTILIZER DEALERS

- Fertilizer Dealers should be aware of safety considerations
   when handling degradable elemental sulfurs. These concerns
   are not usually as important to growers because sulfur is often
   received blended with other nutrients which considerably
   reduces most safety considerations
- Sulfur is classified as non-hazardous and non-toxic, but awareness of potential problems must be stressed to ensure safe handling of this material.

#### PACKAGING — BULK BY TRUCK OR RAIL

• 2,700 lb (1,225 kg) MBB • 50 lb (22.68 kg) Bags

SPECIFICATIONS	
Guaranteed Analysis:	90% Sulfur (Actual)
Angle of Repose:	29°
Size guide number:	260

### RECOMMENDATIONS TO MINIMIZE DUST FORMATION

- Handle solid sulfur no more than necessary
- Use gentle conveyance systems such as conveyer belts at speeds of 180' per minute or less: screw conveyors generate considerably more dust; drag conveyors work well but should not be run dry
- When finished unloading bulk material, another bulk product such as MAP or KCl can be used to chase sulfur residue from the system
- Minimize transfer points and drops at transfer points to reduce attrition of sulfur pastilles
- Where possible, use storage bins with steep bottom cones
   (e.g. 55° or 60°) to minimize pastille fractures as they fall to the bottom of the bin, also "rat-holing"
- Reduce drop heights as much as practical
- Dust control agent should be applied during load out: Keg River's dust control agent reduces fire hazard of the product by over 80%
- Dust suppressants are less effective over time, and after repeated handling
- Conveyor and storage systems should be grounded
- Hand tools used in sulfur handling areas should be nonsparking. Engine-driven equipment should be equipped with spark arresters and protected muffler and exhaust systems
- Check inventory after unloading to ensure there is no fire (there
  is greater risk of fire at the end of the transfer as the equipment
  is run dry and accumulated fines appear in the system)
- Avoid storing or handling in enclosed spaces
- Wear suitable protective clothing, gloves and eye protection