

## RSA MicroTech, LLC

P.O. Box 64589,  
St Paul, MN 551640589

1.800.426.5969

[www.rsamicrotech.com](http://www.rsamicrotech.com)

### **RUFFIN-TUFF GRANULES FEATURES AND BENEFITS**

- FEATURE: 1. Ruffin-Tuff granular micronutrients are mobile in the soil profile.  
BENEFIT: 1. Metals stay available for plant utilization longer, the metals do not immediately tie-up with soils clay particles and clay matter.
- FEATURE: 2. Ruffin-Tuff granular is a organic complexed product.  
BENEFIT: 2. Common to plant life itself, immediately available for root uptake and translocation.
- FEATURE: 3. Ruffin-Tuff granules can be applied with the seed at planting time.  
BENEFIT: 3. This places the micronutrient granules in the root zone, available for immediate plant utilization.
- FEATURE: 4. Ruffin-Tuff granules are located at least every ½ inch in a banded application.  
BENEFIT: 4. With a 5 pound application this allows for good root uptake
- FEATURE: 5. Lignosulfonate has been added to the Ruffin-Tuff granules  
BENEFIT: 5. A organic complexing agent that enhances uptake of micronutrients
- FEATURE: 6. Ruffin-Tuff granules are an acidic product.  
BENEFIT: 6. In alkaline soils prevents immediate soil tie-up and enhances uptake of metal.
- FEATURE: 7. Ruffin-Tuff granules spread more acres  
BENEFIT: 7. With Ruffin-Tuff complexed granules less material is needed per blend, which equates to more acres being spread
- FEATURE: 8. Ruffin-Tuff granules are water soluble.  
BENEFIT: 8. Dissolves easily with the soil moisture, allowing the product to move with the soil wetting pattern for better root uptake.
- FEATURE: 9. Ruffin-Tuff granules have a bulk density of 52-56 lbs. per cubic foot  
BENEFIT: 9. Bulk density is very close to urea, DAP and MAP fertilizers, to allow for a more uniform blend and also reduces segregation.
- FEATURE: 10. Ruffin-Tuff granules mean less product to store and closer inventory control.  
BENEFIT: 10. Frees up bin space
- FEATURE: 11. Ruffin-Tuff granules are available in 50 lb. bags, one-ton super sacks, or bulk  
BENEFIT: 11. Able to fill the needs of any blending operation from large to small



## **BULK DENSITIES**

### OF VARIOUS MICRONUTRIENT SOURCES

<u>PRODUCT</u>	<u>lbs/ft<sup>3</sup></u>	<u>PRODUCT</u>	<u>lbs/ft<sup>3</sup></u>
RSA Ruffin Tuff Zinc 10%	56	35.5% Zinc Sulfate	100
RSA Ruffin Tuff Man. 8%	55	31% Zinc Sulfate	100
RSA Ruffin Tuff Crop Mix I	56	15% Boron	65
RSA Ruff Tuff Copper 5%	52	32% Manganese Sulfate	85
RSA Ruffin Tuff Iron 10%	56	31% Ferrous Sulfate	86
RSA Ruffin Tuff Crop Mix II	56		
25% Copper Sulfate	92		



## **BULK DENSITIES**

### OF VARIOUS FERTILIZERS

<u>PRODUCT</u>	<u>lbs/ft<sup>3</sup></u>
21-0-0 Ammonium Sulfate	60-64
34-0-0 Ammonium Nitrate	58-62
46-0-0 Urea	48-52
11-52-0 Monoammonium Phosphate	58-64
18-46-0 Diammonium Phosphate	56-60
0-0-60 Muriate of Potash	66-70
0-46-0 Triple Superphosphate	66-72
0-0-50 Sulfate of Potash	85-93

**This bulletin provides some technical information and is not intended to give complete information for all applications. Always read and follow label directions.**