



Smart
Nutrition®

MAP + MST™

POWERED
BY MST™



HANDLING RECOMMENDATIONS

9-43-0-16S

Micronized Sulfur Technology (MST) is a patented technology where the elemental sulfur is micronized and integrated directly in the manufacturing of the Mono-Ammonium Phosphate (MAP) granules. The result is a homogenous distribution of micronized elemental sulfur in each granule.

OUR SMART NUTRITION MAP + MST PRODUCT:

- ⊘ Is not sulfur coated
- ⊘ Sulfur particle size averages <10 microns
- ⊘ Guaranteed MST elemental sulfur content is 15%¹

Any dust created from the elemental sulfur in Smart Nutrition MAP + MST will contain both sulfur and MAP.

COMMITMENT TO SAFETY +



Safety is a core value of Nutrien in our vision to grow the world from the ground up. We are committed to making safe, high quality products that not only perform, but also ensure that everyone goes home safe, every day.

Nutrien™
Feeding the Future™



EXPLOSION HAZARD

Smart Nutrition MAP + MST dust is not considered to present an explosion hazard.

In certified 3rd party testing³, the product did not explode or ignite as a dust.

The Sulfur Institute (TSI) has indicated that sulfur containing products with an elemental sulfur concentration of 25% or more may have a propensity for flare-ups². **At a target specification of 15% elemental sulfur, Smart Nutrition MAP + MST product is well below this level.**



FIRE HAZARD

Smart Nutrition MAP + MST granules are not flammable.

In certified 3rd party testing³, the product would not burn. During a fire, decomposition products may include ammonia, nitrogen oxides and sulfur oxides.

Fire fighters should wear appropriate protective equipment and a self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode, as well as, use an extinguishing agent suitable for the surrounding fire.



HANDLING HAZARD

Smart Nutrition MAP + MST can be an irritant to the eyes and prolonged or repeated skin contact may dry the skin and result in irritation.

Recommendations:



Wear gloves and clothing appropriate to minimize contact with skin



Wash skin that may have been exposed



Wear a dust respirator and dust tight safety glasses in dusty environments



Avoid accumulation of dust and maintain adequate ventilation



STORAGE HAZARD

Smart Nutrition MAP + MST may form steep piles that can collapse without warning when transported or stored in bulk. The risk of cliffing and collapse can increase if product is loaded or stored in hot or humid conditions. Storage in the presence of free water can cause corrosion of carbon steel.

Recommendations:



Store in a dry, ventilated location



Avoid forming steep slopes when removing product



Stay out of potential engulfment zones



Do not enter bins, railcars or trucks without conducting a risk assessment and following all confined space entry requirements

For more information, contact:
MST@nutrien.com

¹ The maximum MST-Elemental Sulfur content is 19%.

² Memorandum Sulfur Dust Explosions in Fertilizer Retail Facilities Oct 2, 2015

³ In accordance with applicable ASTM, OSHA and NFPA standards