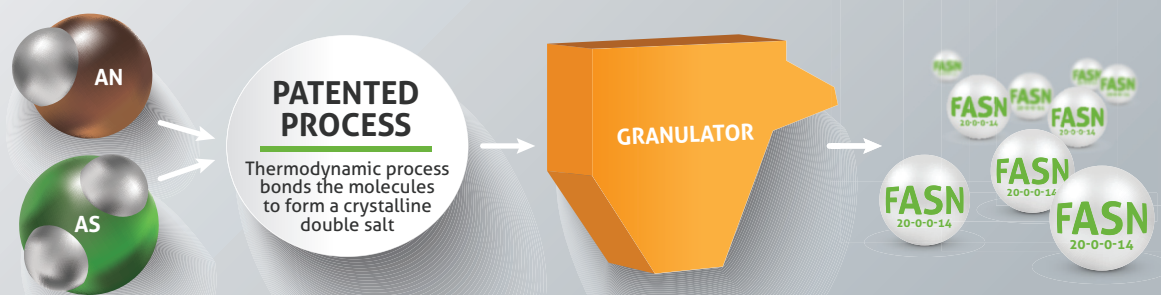


# TECH BULLETIN



*When the industry needed a safer ammonium nitrate fertilizer, the J.R. Simplot Company took on the challenge and developed an advanced technology that fuses ammonium nitrate with ammonium sulfate and sulfate sulfur (26-0-0-14s) to create the first commercially available ammonium nitrate-based fertilizer that is less detonable, more efficient and socially responsible.*

## FUSN™ MANUFACTURING PROCESS



## AGRONOMIC FEATURES

The technology in FUSN revitalizes a proven nutrient with a safe ammonium nitrate-based fertilizer that delivers more dual nitrate and ammonium nitrogen to the plant and optimizes plant uptake potential. FUSN delivers:

- *An environmentally safe ammonium nitrate-based fertilizer*
- *Better delivery of dual ammonium nitrate nutrients*
- *Decreased volatilization of surface-applied nitrogen*
- *Improved crop nutrient release*

## BENEFITS TO THE GROWER

Simplot's FUSN is an ammonium nitrate-based fertilizer. It is a socially responsible fertilizer that provides growers the ability to improve farm productivity and reduce operational impact by providing:

- *Fertilizer that is easy to use and store*
- *A new ammonium nitrate-based fertilizer chemistry with the flexibility to do more*
- *A strong return from clear agronomic benefits*
- *Improved productivity and operational efficiency*

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## WHAT MAKES FŪSN™ LESS DETONABLE THAN OTHER NITRATE PRODUCTS?

The technology used to create Simplot's new product fuses ammonium nitrate with ammonium sulfate to produce a new fused molecule that is less detonable. The fusing of nitrate and sulfate suppresses the potency of the nitrate while adding agronomic benefits.

The result is a less volatile fertilizer that provides the nitrogen and sulfur needed for plant nutrition, as well as enhanced safety, reduced regulations, and flexible storage and handling.

Through the application of new chemistry and advanced engineering, FŪSN is a safe, trusted and socially responsible ammonium nitrate-based fertilizer.

## WHY IS FUSING NITRATE AND SULFATE ALSO AN AGRONOMICS BENEFIT?

In comparison to conventional blended ammonium nitrate solutions, the technology in FŪSN creates a chemical bond between the nitrate and sulfate that improves nitrogen efficiency and reduces volatilization compared to other common sources of nitrogen.

The result of this advanced agronomic technology is optimized nitrogen uptake to the plants, and increased crop yields and better quality for growers.

## HOW DOES FŪSN IMPROVE PRODUCTIVITY AND REDUCES OPERATIONAL IMPACT?

FŪSN is an environmentally safe ammonium nitrate fertilizer that improves farm efficiency because it improves plant uptake potential, provides more operational flexibility, and decreases the volatilization of surface applied nitrogen.

In multiple crop tests against various combinations of nitrogen and sulfur fertilizers, FŪSN has delivered equal or superior crop yields and quality.

FŪSN offers peace of mind, cost savings and no special security or operation requirements.

	Compatability with phosphorus and potassium fertilizers	Compatibility with urea	Ease of application	US Department of Transportation (DOT) Regulation
Ammonium nitrate	Moderate	Low	Difficult "sugars" in hot, humid climates	Regulated oxidizer (Regulated or banned in the US, Canada, Europe, Australia, Afghanistan, Pliippines and many other countries)
Calcium ammonium nitrate	Moderate	Good	Moderate	Not regulated
Urea	High	—	Good	Not regulated
► FŪSN	► High	► High	► Good	► Non-hazardous, not regulated