



## Fact Sheet: Safety and Security Precautions for Ammonium Nitrate

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The fertilizer supply chain in the United States operates with the highest possible standards to promote safety and security. Ammonium nitrate, which is used in both mining and agriculture activities, is highly regulated at the state and federal level, including by the Department of Homeland Security (DHS),<sup>1</sup> the Environmental Protection Agency (EPA),<sup>2</sup> the Occupational Health and Safety Administration (OSHA),<sup>3</sup> and the Department of Transportation (DOT).<sup>4</sup>

TFI and ARA have jointly developed industry-led safety and security initiatives such as the [Guidelines for Storage and Transportation of Ammonium Nitrate](#) and the [ResponsibleAg](#) program. ResponsibleAg ensures that agricultural retailers understand and are in compliance with the numerous federal regulations that apply to their facilities, including those administered by EPA, OSHA, DHS, and DOT. Since its creation over five years ago, over 4,300 audits have been completed and over 1,100 facilities are certified by the ResponsibleAg program.

TFI, ARA, and OSHA also created the [Fertilizer Safety and Health Partners Alliance](#) to advance our shared commitment to safety and the engagement of the fertilizer and agricultural retail industries with OSHA and other federal agencies. Moreover, TFI, ARA, and our member companies work with safety experts such as the National Fire Protection Association (NFPA) to ensure its codes reflect industry advancements and best practices for product safety and storage.

The following information may also be of interest:

- As with other plant nutrients, ammonium nitrate helps us grow the food, fuel and fiber that feeds our world. Half of crop yields are attributable to fertilizer, hence its importance to farmers and food production.
- Ammonium nitrate is a dry, solid material primarily in granular form and comprises approximately 1 percent of all fertilizer material directly applied in the United States.
- Ammonium nitrate is used by farmers for its agronomic and environmental benefits. It is used primarily on pastureland, hay, fruit, and vegetable crops.
- Over the last 20 years, direct application of ammonium nitrate has fallen 63 percent.<sup>5</sup>
- The top five states where ammonium nitrate is directly applied: Missouri, Tennessee, Alabama, Texas, and Wyoming. This accounts for 65 percent of all ammonium nitrate consumed (FY15/16).

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<sup>1</sup> [6 C.F.R. Pt. 27](#) (CFATS) and [33 C.F.R. §105](#) (U.S. Coast Guard)

<sup>2</sup> [Emergency Planning and Community Right-to-Know Act \(EPCRA\)](#)

<sup>3</sup> [29 C.F.R. § 1910.109\(i\)](#); [OSHA Fertilizer Industry Guidance on Storage and Use of Ammonium Nitrate](#)

<sup>4</sup> [49 C.F.R. Parts 171-178](#), DOT Hazardous Materials Regulations

<sup>5</sup> FY95/96 to FY15/16 (1,888k to 694k material tons)

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- Between 2013-2020, total supply<sup>6</sup> in the U.S. has decreased 68 percent from 2.0M material tons to 0.6M material tons. This includes agricultural and industrial market supply.
- Ammonium nitrate fertilizers are safe when handled in accordance with U.S. regulations and industry guidelines. As indicated by the U.S. Chemical Safety Board during Congressional testimony, there have been no accidental detonations of ammonium nitrate where facilities complied with existing federal regulations.<sup>7</sup>

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<sup>6</sup> Production plus imports minus exports

<sup>7</sup> Statement-Response of U.S. Chemical Safety Board Chairman Rafael Moure-Eraso; "[Oversight of Federal Risk Management and Emergency Planning Programs to Prevent and Address Chemical Threats, Including the Events Leading Up to the Explosions in West, TX and Geismar, LA](#)", Senate Committee on Environment and Public Works, June 27, 2013 (Page 221)