



MEMORANDUM

To: Government Affairs Committee
EHS&S Committee
Transportation Committee

From: Justin Louchheim, Director of Government Affairs

Subject: Revised Ammonium Nitrate Fact Sheet and Other Product Classifications Memo replacing previously distributed Memos dated August 5th

Date: October 21, 2020

After the explosion in Beirut, Lebanon, reportedly including approximately 2,700 tons of ammonium nitrate, questions may arise from authorities, distributors, and customers. The fertilizer industry is two times as safe as our industry peers, and the safe and secure handling of fertilizers is paramount to TFI and its members. Per the previous memorandum dated August 5th, we are monitoring the situation and our responses to inquiries will include information on [ResponsibleAg](#) and the [TFI-ARA Ammonium Nitrate storage and handling factsheet](#). This memorandum again provides resources for questions related to ammonium nitrate and ammonium nitrate-based fertilizers and provides updated information on the domestic transportation of other fertilizers under the U.S. Department of Transportation (DOT) Hazardous Materials Regulations (HMRs).

I understand some TFI members may get questions about ammonium nitrate and ammonium nitrate-based fertilizers:

- Some inquiries may include transportation- or storage-related safety questions. Pertinent information about a product or raw material used in the production or processing of fertilizers can potentially be obtained from the safety data sheets (SDS) for the jurisdiction in/to which the product is transported and used.
- The SDS for each product identifies the Hazard classification applicable to that product.
- The [ResponsibleAg](#) program enhances compliance by agricultural retailers with a variety of federal regulations, including those administered by the DOT, Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and the Department of Homeland Security (DHS). Since its creation over five years ago, over 3,500 audits have been completed and over 1,200 facilities are certified by the ResponsibleAg program.
- Like other plant nutrients, ammonium nitrate helps us to grow the food, fuel and fiber that feeds our world. It also comprises about 1 percent of the total market for fertilizers utilized in the United States.
- TFI and our members are committed to ensuring the security and safety of our employees, their families, and their communities.
- Additional information on ammonium nitrate can be found here:
 - [Safety and Security Guidelines for the Storage and Transportation of Fertilizer Grade Ammonium Nitrate at Fertilizer Retail and Distribution Facilities](#)

If questions arise regarding the classification of other fertilizers under the DOT HMRs:

- Anhydrous ammonia is classified as a Class 2, Division 2.2 Non-flammable Compressed Gas and toxic by inhalation (TIH) material.
- The classification of other nitrate-containing fertilizers depends on the chemical composition (e.g., calcium nitrate) or the particle size distribution (e.g., sodium nitrate, potassium nitrate). Consequently, some nitrate-containing fertilizers may be regulated as Class 5, Division 5.1 Oxidizers, while others are not subject to DOT's HMRs. For example, calcium nitrate is a hazmat (by definition, UN 1454), but under United Nations Special Provision 208 and DOT Special Provision 34, a certain commercial grade calcium nitrate fertilizer that meets the conditions of the special provision is designated as not being subject to the requirements (e.g., placarding) of the HMRs. Regarding sodium nitrate and potassium nitrate, a fertilizer grade of prilled sodium nitrate or prilled potassium nitrate does not need to be classified as a Division 5.1 Oxidizer if the fertilizer grade does not meet the United Nations Manual of Tests and Criteria conditions specified in 49 C.F.R. § 173.127(a)(1) for regulation as a Division 5.1 Oxidizer. In contrast, fertilizer grade potassium nitrate crystallized is considered a Division 5.1 Oxidizer (UN 1486).
- Because of the complexities of classifying materials under DOT's HMRs, TFI recommends referring to the manufacturer's SDS for the material to identify the proper hazard classification.

TFI has prepared this memorandum to provide general guidance on ammonium nitrate and other nitrate-containing fertilizers. This memorandum is not a substitute for compliance with applicable regulatory requirements, but rather provides general information on these fertilizers. A company or individual should use its own independent judgment to determine whether the DOT HMRs are applicable to their specific fertilizers and activities.

As always, your input is most welcome. TFI is happy to assist with talking points or other information that may be helpful to your organization. Please reach out anytime.

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