

ANHYDROUS AMMONIA

Be sure to: *Established Command - Assign a Safety Officer - Establish communications - Formulate a plan and a backup plan - Plan an exit or escape plan*

DEFINITIONS

Anhydrous Ammonia (DOT #1005) is used on farms as a fertilizer material. It is a liquid under pressure that is injected into the soil during the growing season. This product is also used as a refrigerant in the food industry (controlled atmospheric storages) and as silage preservative on farms. Anhydrous ammonia is always stored in pressure vessels, including cylinders, as a liquefied compressed gas.

GENERAL HAZARDS AND CONCERNS

- Anhydrous Ammonia when released has an extremely high affinity to water. It will be rapidly attracted to unprotected eyes, mucous membranes (nose, mouth and throat) and unprotected skin.
- The greatest fire hazard is rupturing vessels, or pressure relief valves venting ammonia vapors. Water should be applied to vessels containing ammonia to prevent them from overheating and releasing catastrophic amounts of ammonia.

SUGGESTED OPERATIONAL STEPS

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Take immediate action to evacuate and/or rescue persons in critical danger if possible, providing for the safety of the rescuers. The evacuation zone is the larger area surrounding the hazard zone. All civilians shall be removed from this area if it can be done without undue risks to emergency personnel. See Emergency Response Guidebook for recommended evacuation distances (100 ft. minimum for small spills or releases, and 500 ft. minimum for large spills or releases).
- Apply large amounts of water spray to absorb ammonia vapor. Fog patterns are an effective strategy to use in mitigating anhydrous clouds.

Technical Assistance

Refer to Emergency Response Guide. DOT guide # 1005