1. Storage conditions for ammonium nitrate:

1.1 Pre-packaged ammonium nitrate may be stored in warehouses, sheds or outdoor sites.

1.2 Unpackaged ammonium nitrate may be stored in warehouses. It is prohibited to store unpackaged ammonium nitrate outdoors. In farms, unpackaged ammonium nitrate may be stored in tower silos or closed storage tanks.

1.3 Storage conditions for ammonium nitrate in warehouses:

1.3.1. Warehouses must be closed, covered, dry, ventilated and clean.

1.3.2. The warehouse room must be a single storey building, without any basement or semi-basement. Once a year, the warehouse room must be emptied of fertilizer and the warehouse floor must be thoroughly cleaned. Warehouses of ammonium nitrate must be built of non-combustible materials.

1.3.3. The floor of the warehouse used for the of ammonium nitrate must be made of non-combustible material, i.e., concrete, without any bituminous joints and transitions. There must be no internal holes, grooves or channels.

1.3.4. In warehouses, the temperature should not exceed 30°C and the humidity should not be higher than 50%.

1.3.5. Warehouses of ammonium nitrate must be equipped with natural ventilation ensuring ensure the change of the air in the room at least once an hour during non-working hours. Mechanical ventilation must be activated during work hours. Its intensity is calculated aiming to prevent the accumulation of harmful substances above the limit in the indoor air during work.

1.3.6. In the absence of more stringent national requirements, a maximum of 1,249 t ammonium nitrate may be stored in a warehouse at the same time. Larger quantities of ammonium nitrate may be stored in facilities that comply with the requirements for hazardous facilities under Directive 2012/18/EU. Storage of ammonium nitrate is allowed from 1,250 t up to 5,000 t provided the facility meets the requirements of the lower level according to the qualification quantity of ammonium nitrate stored. Ammonium nitrate can be stored in the amount of 5,000 t or more provided the facility meets the requirements of a higher level according to the qualification quantity of ammonium nitrate stored.

1.3.7. The size of piles and stacks of ammonium nitrate in warehouses must comply with the national regulations.

1.3.8. The height of piles of unpackaged ammonium nitrate or stacks of pre-packaged ammonium nitrate must be such that the distance between them and the ridge, beams and lamp holders is at least 1 m. This is necessary to prevent the ammonium nitrate from being affected by heat (including frictional heat) and to prevent contamination of the ammonium nitrate.

1.3.9 In warehouses, a space of at least 1 meter wide must be left around each stack of pre-packaged ammonium nitrate (as well as from walls of the building). Inside the warehouses, fire and emergency vehicle paths must be left between all stacks of pre-packaged fertilizer and piles of unpackaged fertilizer and between all stacks pre-packaged fertilizer, which must be at least 0.5 meters wider than the vehicle, but not narrower than 3 meters.

1.3.10. When storing unpackaged ammonium nitrate, the storage room can be divided into several compartments of convenient shape and dimensions. Their size, shape and other parameters must comply with the national regulations.

1.3.11. Pre-packaged big bags of ammonium nitrate in warehouses must be stored in an upright position, stacked on flat pallets without protruding nails, wood screws, wood chips or other sharp objects that could damage the big bag.

1.3.12. Ammonium nitrate must not be loaded into the warehouse at temperatures exceeding 55°C.

1.3.13. Ammonium nitrate is hygroscopic, so it can absorb moisture from the air when stored in an unpackaged pile. Adequate precautions must be taken to protect ammonium nitrate from moisture. This can be done by covering the piles of ammonium nitrate with a waterproof film. Warehouse doors should be kept closed as much as possible.

1.3.14. It is STRICTLY PROHIBITED to use explosives for breaking up the piles of ammonium nitrate that has stuck together into pieces. The product can be crushed by mechanical means.

1.4 Storage conditions for ammonium nitrate in sheds:

1.4.1. Sheds must be built only of non-combustible materials.

1.4.2. Sheds must have a hard floor coating.

1.4.3. In sheds, pre-packaged ammonium nitrate must be stored in stacks.

1.4.4. When pre-packaged ammonium nitrate is stored in sheds, the stack must not exceed 700 t and the stack area must not exceed 300 m^2. Fire gaps of at least 6 meters must be maintained between the stacks. When supplying ammonium nitrate to other countries, *the amount of ammonium nitrate allowed to be stored in their sheds, the size of stacks and the distances between the stacks must meet the national regulations of that country.*

1.4.5. When storing pre-packaged ammonium nitrate in sheds, in all cases it must be kept at a temperature not higher than 30°C (only in the cold season when the ambient temperature is lower than 30°C), protected from direct atmospheric precipitation, moisture (rain, snow; the package may not be located in water and water may not collect on it) and direct sunlight.

1.5 Storage conditions for ammonium nitrate in outdoor sites:

1.5.1. The outdoor sites must have a hard floor coating.

1.5.2. In outdoor sites, pre-packaged ammonium nitrate must be stored in stacks.

1.5.3. When storing ammonium nitrate in piles outdoors, the fertilizer piles should be placed on pallets to reduce the possibility of the lower bags getting wet and to reduce the amount of defective product.

1.5.4. When pre-packaged ammonium nitrate is stored in outdoor sites, the stack must not exceed 700 t and the stack area must not exceed 300 m^2. Fire gaps of at least 6 meters must be maintained between the stacks. When supplying ammonium nitrate to other countries, the amount of ammonium nitrate allowed to be stored in their outdoor sites, the size of stacks and the distances between the stacks must meet the national regulations of that country.

1.5.5. When storing pre-packaged ammonium nitrate in outdoor sites, in all cases it must be kept at temperatures not higher than 30°C (only in the cold season when the ambient temperature is lower than 30°C), protected from direct atmospheric precipitation, moisture (rain, snow; the package may not be located in water and water may not collect on it) and direct sunlight.

1.6 Storage conditions for ammonium nitrate in tower silos and storage tanks:

1.6.1 Tower silos and storage tanks must be used only for the storage of ammonium nitrate.

1.7. Conditions for the number of rows allowed for stacking the product:

1.7.1. Ammonium nitrate pre-packaged in 500 kg big bags cannot be stacked on top of each other in more than 4 rows when stored in stacks.

1.7.2 Ammonium nitrate pre-packaged in 600 kg big bags cannot be stacked on top of each other in more than 3 rows when stored in stacks.
1.7.3. Ammonium nitrate pre-packaged in 1,000 kg big bags cannot be stacked on top of each other in more than 3 rows when stored in stacks.
1.7.4. Ammonium nitrate pre-packaged in 1,250 kg big bags cannot be stacked on top of each other in more than 3 rows when stored in stacks.

1.8 Storage conditions for ammonium nitrate with other products:

1.8.1. Only pre-packaged ammonium nitrate can be stored in the same room as other fertilizers, but always in a separate stack. Other fertilizers stored in the same room as pre-packaged ammonium nitrate must also be pre-packaged.
1.8.2. Materials that are thermally stable and do not react with ammonium nitrate (e.g., DAP, sodium nitrate, limestone, calcium ammonium nitrate) may be stored in the same storage area as ammonium nitrate, but mixing and contamination of these materials must be avoided.
1.8.3. If urea is stored in the same room or place as ammonium nitrate, it must be ensured that they are not stored next to each other and may not come into contact. Storage of ammonium nitrate and urea must be organized in such a way that they may not contaminate or affect each other even in the event of fire.
1.8.4. Types of substances that are considered potentially dangerous to store together with ammonium nitrate are as follows:
1) Combustible materials causing fire hazard and heat release hazard;
2) Substances that are chemically unstable or that may react in contact with ammonium nitrate;
3) Substances and objects that can explode;
4) Substances which may release toxic fumes in the event of fire or reaction with ammonium nitrate.
These types of substances may not be stored in the same room as ammonium nitrate. Examples of such substances are as follows:
- Solid or liquid substances sensitive to decomposition and explosion (e.g., organic peroxides);
- Flammable liquids such as gasoline, oils, greases, coating oils, fuel oil;
- Gas cylinders, including those intended for welding;
- Oil-based pesticides;
- Corrosive liquids, acids and other reactive substances such as oxidizers, reducers, chlorates, chlorides, hypochlorites, chlorinated organic compounds, bleaching powders, chromates, nitrites, copper and zinc salts, permanganates, which may contaminate or affect the product in the event of fire;
- Highly flammable solid and liquid products such as sulphur, metal powders (especially zinc), materials containing copper, nickel, cobalt, zinc or their alloys, and organic materials such as wood, hay, straw, grains and livestock fodder;
- Products that release heat in the presence of moisture (e.g., quicklime or calcium cyanamide);
- Products that react with ammonium nitrate releasing ammonia gas (e.g., cement, lime, basic slag, alkalis and other alkaline substances);
- Other agricultural products the interaction of which with ammonium nitrate is unknown or unclear (e.g., pesticides, disinfectants, herbicides).

1.8.5. Ammonium nitrate may not be stored in the same stack, pile, compartment, section as substances that are classified as Class 9 UN No. 2071 according to ADR (these substances can act as a heat source during decomposition). It is recommended not to store these substances in the same building as ammonium nitrate. Where such materials are stored in the same building as ammonium nitrate, strict procedures must be in place to ensure that the materials are effectively segregated and cannot affect each other in the event of fire or explosion.

1.8.6. Special precautions must be taken when storing non-fertilizers which are flammable and reactive in the same storage area as ammonium nitrate. These non-fertilizers must be separated by fire barriers, the resistance of which has been selected according to the quantity and nature of the products to be stored.

1.8.7. Precautions must be taken to avoid accidental mixing of different fertilizer products, even if they are not classified as hazardous. During such accidental mixing, incompatible substances, including those classified as hazardous, with unpredictable properties may be mixed together.

1.8.8. The storage building where ammonium nitrate is stored must not be used for non-fertilizer storage, including packaging materials and pallets, unless they are separated from the fertiliser by a suitable fire barrier. These non-fertilizers must be prevented from affecting ammonium nitrate in the event of fire.

1.8.9. In compliance with the basic principle that products stored together must not contaminate or affect each other in the event of fire, in certain cases it is perfectly adequate to leave completely empty spaces around the stored ammonium nitrate.

1.9. Other conditions for all storage sites:

1.9.1. Big bags of ammonium nitrate are stored in a vertical position.

1.9.2. When stored in ports, packaged ammonium nitrate bags/piles should be placed on pallets to reduce the possibility of the bottom bags getting wet and to reduce amount of defective products.

1.9.3. The storage area of ammonium nitrate at a manufacturer's site, a port, a distributor's site and an end-user's site must be kept out of reach of unauthorized personnel. The warnings "Permitted access only" and other requirements for the safe storage of ammonium nitrate must be posted in clearly visible places in the product storage area.

1.9.4. Smoking, open flames, electric heaters with open radiant filaments are prohibited in the ammonium nitrate storage area. Do not store ammonium nitrate where it can be exposed to any heat or heating source. "No smoking" warning signs must be posted in highly visible places of the product storage area.

1.9.5. Do not transport flammable materials through the ammonium nitrate storage area.

1.9.6. Do not carry out activities that are not directly related to the storage area (e.g., vehicle maintenance or equipment repair) in warehouses and other storage areas of ammonium nitrate.

1.9.7. Do not use organic materials (e.g., sawdust) for cleaning of the floor of the warehouse of ammonium nitrate; use inorganic absorbents (e.g., limestone, sand, dolomite, gypsum).

1.9.8. Ammonium nitrate spilled during handling must be swept up and safely disposed of. It must be ensured that the spaces between the piles are clean.

1.9.9. Measures must be taken to prevent the formation and accumulation of a layer of crushed and hardened ammonium nitrate on the floor of the storage areas of ammonium nitrate.

1.9.10. Avoid storing the product in hot rooms or in direct sunlight, damage to the product packaging, ingress of moisture into the product, contamination with incompatible materials (fertilizers and other substances containing elemental sulphur, urea, NPK, NP and/or NK urea-based fertilisers).

1.9.11. The purchase, importation, storage or use of this product in the general public is restricted by Regulation (EU) 2019/1148. All suspicious transactions and significant events of disappearance and theft should be reported to the appropriate national contact point. Refer to: https://home-affairs.ec.europa.eu/policies/internal-security/counter-terrorism-and-radicalisation/protection/legislation-chemicals-used-home-made-explosives_en

1.9.12. In addition to the storage conditions for ammonium nitrate presented here, the recommendations provided in the document "Guidelines for the storage, handling and transportation of solid mineral fertilizers" (2007) published by the European Fertilizer Manufacturers Association "Fertilizers Europe" must be followed.

1.10 The guaranteed shelf life of ammonium nitrate stored in warehouses and sheds is 12 months from the date of manufacture, and 9 months from the date of manufacture when stored outdoors.