

Safety Data Sheet

According to Regulation (EU) No 830/2015 of the Commission

Issue date 28/02/2017

Issue 1

Review date

Review

Ammonium Nitrate fertilizer >70% AN and <80% AN, with dolomite, limestone and/or calcium carbonate

| SECTION 1 | | Identification of the substance/mixture and of the company/undertaking | | | |
|---|---|---|-------------|-------------------|--------------------------|
| 1.1 | Product identifier | | | | |
| | Product commercial name | Calcium Ammonium Nitrate from 24,6 to 27% N, Calcium Ammonium Nitrate with Magnesium from 24,6 to 27% N; Calcium Ammonium Nitrate with Magnesium at 27% N in granules. | | | |
| | Chemical name | Mixture, main ingredient Ammonium Nitrate | | | |
| | Other names | CAN 24,6 to 27; CAN 24,6 to 27 with Mg | | | |
| | Chemical formula | Mixture, main ingredient NH ₄ NO ₃ | | | |
| | EU index number (Appendix 1) | Not applicable | | | |
| | CE No | Not applicable | | | |
| | CAS No. | Not applicable | | | |
| | REACH or National product registration number | Not applicable | | | |
| 1.2 | Relevant identified uses of the substance or mixture and uses advised against | | | | |
| | Identified uses | As a fertiliser and in the manufacture of mixtures. | | | |
| | Uses advised against | None | | | |
| 1.3 | Details of the supplier of the safety data sheet | | | | |
| | Company name | FERTIBERIA. S.A. | | | |
| | Company address | Paseo de la Castellana, 259 D. Plantas 47 y 48 - 28046 Madrid | | | |
| | Company telephone number | Central: 91.586.62.00; Aviles factory: 985-57.78.50; Puertollano factory: 926.44.93.00; Sagunto Factory: 962.69.90.04 | | | |
| | Company email for SDS | reachfertiberia@fertiberia.es | | | |
| 1.4 | Emergency telephone number | Aviles factory: 985-57.78.50; Puertollano factory: 926.44.93.00; Sagunto Factory: 962.69.90.04 | | | |
| SECTION 2 | | Hazards identification | | | |
| 2.1 | Classification of the substance or mixture* | According to Regulation EC 1272/2008 [CLP] Non-hazardous. | | | |
| 2.2 | Label elements | Pictograms | Signal word | Hazard statements | Precautionary Statements |
| 2.3 | Other hazards | | | | |
| | PBT/vBvP Criteria | In accordance with appendix XIII of the Regulation (EC) no. 1907/2006, it is not PBT or vPvB since it is an inorganic substance. | | | |
| | <u>Other hazards that do not involve product classification</u> | | | | |
| | Physical and chemical hazards | This product is not itself combustible but if included in a fire it will maintain a sustained combustion even in the absence of air. When strongly heated it melts. If heating continues it can reach decomposition releasing toxic fumes that contain nitrogen and ammonium oxides. These products have a high resistance to detonation. Heating under strongly confined conditions may lead to an explosive reaction. | | | |
| | Health hazards | Fertilizers are basically harmless products when handled correctly. Nevertheless, the following points should be observed: Contact with skin and eyes: Prolonged contact may cause discomfort. Ingestion: Small quantities are unlikely to cause toxic effects. Large quantities may give rise to gastro-intestinal disorders and in extreme cases (particularly in children) formation of methaemoglobin ("blue baby" syndrome) and cyanosis (indicated by blueness around the mouth) may occur. Inhalation: High concentrations of dust in the air may cause nose and upper respiratory tract irritation with sore throat and cough symptoms. Long term local effects: No adverse effects are known. Other: Fire and heating: Inhaling decomposition gases containing nitrogen and ammonium oxides can cause irritation and have corrosive effects on the respiratory system. These gases may cause delayed pulmonary oedema. | | | |
| | Environmental hazards | Ammonium Nitrate is a nitrogen fertilizer. Heavy spillage may cause an adverse environmental impact such as eutrophication (developing undesirable flora) in confined surface waters or nitrate contamination. (See section 12). | | | |
| * To understand the full meaning of hazard statements (H): see section 16 | | | | | |

Ammonium Nitrate fertilizer >70% AN and <80% AN, with dolomite, limestone and/or calcium carbonate

| SECTION 3 Composition/information on ingredients | | | | | | | | |
|--|--|--|------------|------------------|----------------------|---------------------------|-------------------------------------|-------------------------------|
| Mixtures | Name | % (w/w) | CAS No. | IUPAC | Index No R.1272/2008 | REACH Registration Number | Classification Regulation 1272/2008 | Specific concentration limits |
| | Ammonium nitrate | 70- 80% | 6484-52-2 | ammonium nitrate | ---- | 01-2119490981-27-0028 | Oxid. Solid 3 Eye Irrit. 2 | |
| | Dolomite | 20-30% | 16389-88-1 | | | Not required | Not classified | |
| | Limestone | | 1317-65-3 | | | Not required | Not classified | |
| SECTION 4 First aid measures | | | | | | | | |
| 4.1 | Description of first aid measures | | | | | | | |
| | General | Seek medical attention when necessary. | | | | | | |
| | Inhalation | Remove the person from the point of exposure to the dust. Seek medical attention if there are any harmful effects. | | | | | | |
| | Ingestion | Do not induce vomiting. Rinse the mouth and give water or milk to drink. Seek medical attention if more than a small quantity has been ingested. | | | | | | |
| | Contact with skin | Wash the affected area with water. | | | | | | |
| | Contact with eyes | Wash or rinse the eyes with plenty of water for at least 15 minutes, including behind the eyelids. Remove contact lenses if present and easy to do. Seek medical attention if eye irritation persists. | | | | | | |
| 4.2 | Most important symptoms and effects, both acute and delayed | | | | | | | |
| | | Some effects on the lungs may be delayed. | | | | | | |
| 4.3 | Indication of any immediate medical attention and special treatment needed | | | | | | | |
| | | Inhalation of gases, from a fire or thermal decomposition, that contain nitrogen and ammonium oxides may cause irritation and have corrosive effects on the respiratory system. Administer oxygen, especially if there is blue colouring (methaemoglobin) around the mouth. | | | | | | |
| SECTION 5 Firefighting measures | | | | | | | | |
| 5.1 | Extinguishing media | | | | | | | |
| | Suitable extinguishing media | Water. | | | | | | |
| | Unsuitable extinguishing media | Do not use chemical or foam extinguishers or attempt to suffocate the fire with sand or mist. | | | | | | |
| 5.2 | Special hazards arising from the substance or mixture | | | | | | | |
| | Special hazards | There is a potential explosion risk during the fire when the product is strongly confined and/or contaminated with incompatible materials (e.g. organic material, halogen compounds - see section 10) Prilled fertiliser must not be put in drains. | | | | | | |
| | Thermal decomposition or product combustion hazards | Nitrogen and ammonium oxides | | | | | | |
| 5.3 | Advice for firefighters | | | | | | | |
| | Specific firefighting methods | Open doors and windows in the area to give maximum ventilation. Avoid breathing the smoke (toxic). Position yourself upwind of the fire. Do not contaminate the fertiliser with oils or other combustible materials. | | | | | | |
| | Special protective equipment for firefighting | Use self contained breathing apparatus in case of smoke. | | | | | | |
| SECTION 6 Accidental release measures | | | | | | | | |
| 6.1 | Personal precautions, protective equipment and emergency procedures | | | | | | | |
| | | Avoid walking on the spilt product and exposure to the dust. | | | | | | |
| 6.2 | Environmental precautions | | | | | | | |
| | | Take care to prevent contamination of water courses and drains and inform the competent authorities in case of accidental contamination of water courses. | | | | | | |
| 6.3 | Methods and material for containment and cleaning up | | | | | | | |
| | | Any spillage of fertiliser should be quickly cleaned up, swept and placed in a clean, open receptacle and labelled for safe disposal avoiding the formation of dust. Do not mix with sawdust or other combustible or organic material. Dilute any contaminated or fine grain fertiliser with inert materials such as limestone/dolomite, mineral phosphate, gypsum, sand or dissolve in water. | | | | | | |
| 6.4 | Reference to other sections | | | | | | | |
| | | See section 1 for contact data, section 8 for PPE and section 13 for waste disposal. | | | | | | |

Ammonium Nitrate fertilizer >70% AN and <80% AN, with dolomite, limestone and/or calcium carbonate

| SECTION 7 | | Handling and storage |
|-----------|--|--|
| 7.1 | Precautions for safe handling | |
| | | Prevent the excessive generation of dust. Prevent contamination with combustible materials (e.g. gas-oil, greases, etc.) and other incompatible materials. Avoid the unnecessary exposure of the product to the atmosphere to prevent moisture absorption. When the product is handled for long periods, use appropriate personal protective equipment, e.g. gloves. Carefully clean the installations before carrying out maintenance and repair operations. |
| 7.2 | Conditions for safe storage, including any incompatibilities | |
| | | Store in compliance with RD 888/2006, (AF-1) regulations. Place away from sources of heat and flames. Always keep away from combustible materials and substances mentioned in section 10. In the field, ensure that the fertilizer is not stored near hay, straw, grain, gas-oil, etc. When stored in bulk, avoid mixing with other incompatible fertilizers. In the storage area, ensure that strict tidiness and cleanliness standards are complied with. Do not allow smoking or the use of naked portable lamps in the storage area. Restrict the size of piles and stacks (in accordance with regulations in force) and leave a minimum free space of 1 metre around the piles or stacks of sacks. Any building used for storage should be dry and well ventilated. When required, due to the nature of the product stored in containers and weather conditions, the product should be stored in such a way as to avoid its destruction due to thermal cycles (extreme temperature conditions). The product should not be stored in direct sunlight to prevent physical break-up due to thermal cycles. |
| | Recommended and non-recommended packaging materials | Suitable materials for containers are: steel, aluminium and synthetic plastics. Do not use copper and/or zinc. |
| 7.3 | Specific end uses | |
| | | See section 1.2 and appendices for exposure scenarios. |

Note: stability and reactivity, see section 10

| SECTION 8 | | Exposure controls/personal protection | | | | | | |
|-----------|--|--|--|-----------------------------|------------------|-----------------------------|-------------------------------|------------------------|
| 8.1 | Control parameters | | | | | | | |
| | Exposure limit values | | Component | CAS | | | | |
| | | | Ammonium nitrate | 6484-52-2 | Not established. | | | |
| | | | | | Worker | | consumer | |
| | Derived from the CSR | | | systemic | industrial | professional | | |
| | | | DNEL | oral | long term | Not applicable | Not applicable | 12.8 mg/kg bw/day |
| | | | | inhalation | long term | 37.6 mg/m ³ | 37.6 mg/m ³ | 11.1 mg/m ³ |
| | | | | dermal | long term | 21.3 mg/Kg bw/day | 21.3 mg/Kg bw/day | 12.8 mg/kg bw/day |
| | PNEC | | water | air | soil | microbiological | sediment | oral |
| | | fresh water: 0.45 mg/l salt water: 0.045 mg/l in intermittent releases: 4.5 mg/l | Not available | Insufficient data available | 18 mg/l | Insufficient data available | Low bioaccumulative potential | |
| 8.2 | Exposure controls | | | | | | | |
| | Engineering measures and hygiene controls | | Prevent high concentrations of dust and provide ventilation wherever necessary. Do not smoke or drink when handling. Wash hands after handling the product and before eating, drinking or smoking. Use the wash basin at the end of the work day. | | | | | |
| | Personal protection measures | | | | | | | |
| | | Eyes | Safety glasses with side shields (EN 166) to prevent eye irritation. In dusty conditions use panoramic safety goggles. | | | | | |
| | | Skin and body | Work clothes. | | | | | |
| | | Hands | Use suitable gloves (for example, rubber or leather) when handling the product over long periods of time. (EN-388, EN-420). | | | | | |
| | | Respiratory | If there is a high concentration of dust and/or the ventilation is inadequate, use an anti-dust mask or respirator with a suitable filter. (EN-149) | | | | | |
| | | Thermal | | | | | | |
| | Environmental exposure controls | | See section 6. | | | | | |
| | <i>Advice relating to personal protection is valid for high exposure levels.</i> | | | | | | | |
| | <i>Choose personal protection equipment suitable to exposure risks.</i> | | | | | | | |

| SECTION 9 | | Physical and chemical properties |
|-----------|---|---|
| 9.1 | Information on basic physical and chemical properties | |
| | Aspect | White or coloured granules or prills. |
| | Colour | White or coloured |
| | Odour | Odourless |
| | Molecular weight | Not applicable |
| | pH | pH aqueous solution (100 g/l) > 4.5. |
| | Boiling point | It does not have a boiling point, it decomposes above 210°C |
| | Melting point | 169 °C |
| | Flash-point | Non flammable |
| | Flammability | Non flammable |
| | Explosive properties | If it is heated under strongly confined conditions (e.g. in pipes or drains) a violent reaction or explosion may take place, especially if there is contamination by any of the substances mentioned in section 10. |
| | Auto-ignition temperature | Non flammable |
| | Decomposition temperature | Begins to decompose above 170 °C |
| | Lower explosive limit | Not applicable |

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| | | |
|-----|---------------------------------------|--|
| | Upper explosive limit | Not applicable |
| | Oxidising properties | Not classified as oxidising. |
| | Apparent density at 20°C | 950 at 1,100 kg/m ³ |
| | Vapour pressure at 20 °C | Not applicable |
| | Vapour density | Not applicable |
| | Partition coefficient n-octanol/water | Not applicable |
| | Viscosity | Not applicable |
| | Water solubility | > 100 g/l (hygroscopic) |
| 9.2 | Other information | Molecular weight 80 g/mol for the main ingredient (ammonium nitrate) |

| SECTION 10 Stability and reactivity | | |
|-------------------------------------|------------------------------------|--|
| 10.1 | Reactivity | Stable under normal conditions of storage, handling and use (see section 7) |
| 10.2 | Chemical stability | Stable under normal conditions of storage, handling and use (see section 7) |
| 10.3 | Possibility of hazardous reactions | When it is heated above 170°C it decomposes releasing NO _x and Ammonia. Contamination with incompatible materials. |
| 10.4 | Conditions to avoid | Proximity to sources of heat or fire. Contamination by incompatible materials. Heating above 170 °C (decomposes to gases) Unnecessary exposure to the atmosphere. Heating when confined. Welding or heating work of the equipment or plant that may contain fertiliser remnants, without preliminary cleaning to remove the product remnants. |
| 10.5 | Incompatible materials | Inflammable materials, reducing agents, acids, alkalis, sulphur, chlorates, chlorides, chromates, nitrites, permanganate, metal powders and metal-containing substances such as copper, nickel, cobalt, zinc and their alloys. |
| 10.6 | Hazardous decomposition products | In case of fire: see Section 5 When strongly heated it melts and decomposes releasing toxic gases (e.g. NO _x and ammonia). When it is in contact with alkaline materials, such as lime, ammonia gases may be produced. |

| SECTION 11 Toxicological information | | | | | | |
|---|------------------|-----------|----------------------------------|---|---|---|
| 11.1 Information on toxicological effects | | | | | | |
| Acute toxicity | | | | | | |
| | Component | CAS No. | Method | Species | Via | Result |
| | Ammonium nitrate | 6484-52-2 | OECD 401 OECD 402 | rat rat rat | oral skin respiratory | LD50: 2950 mg/Kg bw. LD50: > 5000 mg/Kg bw. LC50: >88.8 mg/m ³ . |
| Skin corrosion/irritation | | | | | | |
| | Component | CAS No. | Method | Species | Via | Result |
| | Ammonium nitrate | 6484-52-2 | OECD 404 | Rabbit | skin | Non-irritant. |
| Serious eye damage/irritation | | | | | | |
| | Component | CAS No. | Method | Species | Via | Result |
| | Ammonium nitrate | 6484-52-2 | OECD 405 | Rabbit | eye | Irritant |
| Respiratory or skin sensitisation | | | | | | |
| | Component | CAS No. | Method | Species | Via | Result |
| | Ammonium nitrate | 6484-52-2 | OECD 429 | mouse | skin | Non-sensitising. |
| Germ cell mutagenicity; | | | | | | |
| | Component | CAS No. | Method | Species | Result | |
| | Ammonium nitrate | 6484-52-2 | OECD 471 OECD 473 OECD 476 | bacteria Chromosomal aberrations mutation in mammal cells | Negative. Non-mutagenic. Ames test. Negative. Non-mutagenic. Negative. Non-mutagenic. | |
| Carcinogenicity | | | | | | |
| | Component | CAS No. | Method | Species | Via | Result |
| | Ammonium nitrate | 6484-52-2 | | rat | All | Non carcinogenic. |
| Reproductive toxicity | | | | | | |
| | Component | CAS No. | Method | Species | Via | Result |
| | Ammonium nitrate | 6484-52-2 | OECD 422 | rat | oral | -Effects on fertility: NOAEL: ≥1500 mg/kg bw/d. -Toxicity for development: NOAEL: ≥1500 mg/kg bw/d |
| STOT- single/repeated exposure | | | | | | |
| | Component | CAS No. | Method | Species | Via | Result |
| | Ammonium nitrate | 6484-52-2 | OECD 422 OECD 453 | rat rat rat | oral (28 days) oral (52 weeks) oral (13 weeks) Inhalation (2 s) | Sub-acute oral route. NOAEL: ≥ 1500 mg/kg body weight/day. Chronic oral route. NOAEL: 256 mg/kg body weight/day. Sub-chronic oral route. NOAEL: 886 mg/kg body weight/day. Inhalation route. NOAEC (systemic): ≥ 185 mg/m ³ |
| Aspiration hazard | | | | | | |
| Significant effects or critical dangers are not known. | | | | | | |
| Dust inhalation in high concentration may cause irritation of nose and to upper respiratory tract, with symptoms such as sore throat and cough. | | | | | | |

Ammonium Nitrate fertilizer >70% AN and <80% AN, with dolomite, limestone and/or calcium carbonate

| SECTION 12 | | Ecological information | | | | | | |
|--|--|-------------------------|--|---------------------------------------|---|--|-----------------------|-------------------------------|
| 12.1 | Toxicity | | | | | | | |
| Water toxicity | | | | | | | | |
| | Component | CAS No. | | Fish (Cyprinus carpio) | Crustaceans | Algae (benthic diatoms) | | |
| | Ammonium nitrate | 6484-52-2 | Short term | LC50(48h) = 447 mg/l. | EC50/LC50 (48h) = 490 mg/l (of potassium nitrate) (Daphnia magna) | LC50/EC50 (10 days) > 1700 mg/l (of potassium nitrate) | | |
| | | | Long term | Not necessary. | NOEC (168h) = 555 mg/l (Bullia digitalis) | Not available | | |
| Land Toxicity | | | | | | | | |
| | Component | CAS No. | Macroorganisms | Microorganisms | Land plants | Other organisms | | |
| | Ammonium nitrate | 6484-52-2 | Not scientifically justified | Not scientifically justified | Not scientifically justified | Not available | | |
| Microbiological activity in waste water treatment plants | | | | | | | | |
| | Component | CAS No. | Toxicity for aquatic microorganisms | | | | | |
| | Ammonium nitrate | 6484-52-2 | CE50/CL50 (180 min) >1000 mg/l (of sodium nitrate) | | | | | |
| 12.2 | Persistence and degradability | | | | | | | |
| | Component | CAS No. | Degradation | | | | | |
| | Ammonium nitrate | 6484-52-2 | Hydrolysis | Non-hydrolysable. Test not necessary. | | | | |
| | | | Photolysis | No information available | | | | |
| | | | Biodegradation | Not necessary, inorganic substance. | | | | |
| 12.3 | Bioaccumulative potential | | | | | | | |
| | Component | CAS No. | Octanol-water partition coefficient (Kow) | Bioconcentration factor (BCF) | Comments | | | |
| | Ammonium nitrate | 6484-52-2 | Not applicable. Inorganic substance. | - | | | | |
| 12.4 | Mobility in soil | | | | | | | |
| | Component | CAS No. | Result | | | | | |
| | Ammonium nitrate | 6484-52-2 | low absorption potential (based on its properties) | | | | | |
| 12.5 | Results of PBT and vPvB assessment | | | | | | | |
| | Not required. Inorganic substance. See REACH appendix XIII. | | | | | | | |
| 12.6 | Other adverse effects | | | | | | | |
| | No more information. | | | | | | | |
| SECTION 13 | | Disposal considerations | | | | | | |
| 13.1 | Waste treatment methods | | | | | | | |
| | Depending on the degree and nature of the contamination, it can be disposed of as a fertiliser over the ground, as raw material or disposed of in an authorised waste installation. Do not put the waste in the drain, dispose of the product waste and containers in a safe way. Dispose of in accordance with all local and national regulations. Empty containers by shaking them to remove as much as possible of their content. If approved by the local authorities, empty packaging can be disposed of as a non-hazardous material or returned for recycling. | | | | | | | |
| SECTION 14 | | Transport Information | | | | | | |
| 14.1 - 14.6 | Regulatory Information | UN Number | Proper shipping name | Transport hazard class(es) | Packing group | Label | Environmental hazards | Special precautions for users |
| | ADR/RID ADNR IMDG IATA | | | | | | NOT CLASSIFIED | |
| 14.7 | Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable | | | | | | | |
| SECTION 15 | | Regulatory information | | | | | | |
| 15.1 | Safety, health and environmental regulations/ legislation specific for the substance or mixture | | | | | | | |
| | Regulation 2003/2003 (fertilisers) Regulation 1907/2006 (REACH). Entry 58 of appendix XVII. Regulation 1272/2008 (CLP) R.D. 506/2013 (fertilizers) R.D. 363/95 and RD. 255/03: (Hazardous substances and preparations) R.D. 374/2001 (Chemical agents) RD. 888/2006, storage of ammonium-nitrate based fertilizers with a mass content less than or equal to 28%. (AF-1) | | | | | | | |
| 15.2 | Chemical safety assessment | | | | | | | |
| | Chemical Safety Assessment for the main ingredient, Ammonium Nitrate as a substance. | | | | | | | |

Ammonium Nitrate fertilizer >70% AN and <80% AN, with dolomite, limestone and/or calcium carbonate

| SECTION 16 | Other information | |
|---|---|---|
| | Hazard statements | None |
| | Precautionary statements | None |
| | Bibliographical references and data sources | Ammonium nitrate chemical safety assessment; Guidance documents EFMA/FERTILIZER EUROPE; Data for TFI HPV; NOTOX Not classified as "eye irritant" based on negative results obtained in tests conducted by EFMA / FERTILIZER EUROPE. |
| | Abbreviations and acronyms | ELV-DE: Environmental limit value (daily exposure) ELV-ST Environmental limit value (short term) NOAEL: No observable adverse effect level LD50: Lethal dose 50% LC50: Lethal concentration 50% EC50: Effective concentration 50% DNEL: Derived no effect level PNEC: Predicted no effect concentration LOEC: Lowest observed effect concentration NOEC: No observed effect concentration NOAEC: No observed adverse effect concentration |
| | Adequate training for workers | Obligatory training in occupational risk prevention |
| | Date of prior SDS | |
| | Modifications introduced in the current revision | |
| <p>The information contained in this Safety Data Sheet is given in good faith. It is accurate to the best of our knowledge and belief and represents the most up to date information about the product at the time of publication. The information given in this data sheet does not constitute or replace the user's own assessment of workplace risks as required by other health and safety legislation.</p> | | |