

Safety Data Sheet

According to Commission Regulation (EU) No 2015/830

Issue date 21/07/2016
 Issue 3
 Review date 03/11/2016
 Review 4

Ammonium Sulphate Nitrate ≤ 45% AN

SECTION 1		Identification of the substance/mixture and of the company/undertaking			
1.1	Product identifier				
	Product commercial name	Suphate Nitrate, Sulphonitrate			
	Chemical name	Mixture, main ingredients: Ammonium Nitrate and Ammonium Sulphate			
	Other names	Ammonium Nitrate Sulphate (26%N)			
	Chemical formula	Mixture, main ingredients: NH ₄ NO ₃ , (NH ₄) ₂ SO ₄			
	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			
	Company email for SDS	reachfertiberia@fertiberia.es			
1.4	Emergency telephone number	Aviles factory: 985-57.78.50			
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
		NONE			
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.			
	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					

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SECTION 3 Composition/information on ingredients								
3.2	Name	% (w/w)	CAS No.	IUPAC	Index No R.1272/2008	REACH Registration Number	Classification Regulation 1272/2008	Specific concentration limits
	Ammonium nitrate	≤ 45%	6484-52-2	ammonium nitrate	----	01-2119490981-27-0028	Oxid. Solid 3 Eye Irrit. 2	
	Ammonium Sulphate	≥55%	7783-20-2	Ammonium Sulphate		01-2119455044-46-0034	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 10 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							
	Thermal decomposition or product combustion hazards	Nitrogen and ammonium oxides and sulfur dioxide						
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.						

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SECTION 7 Handling and storage									
7.1	Precautions for safe handling		Minimise airborne dust generation and prevent wind dispersal. 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. The product should not be stored in direct sunlight.						
	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 use(s)		See section 1.2 and appendices for exposure scenarios.						
<i>Note: stability and reactivity, see section 10</i>									
SECTION 8 Exposure controls/personal protection									
8.1	Control parameters								
	Exposure limit values		Component	CAS					
			Ammonium nitrate	6484-52-2	Not established.				
					Worker				
				systemic	industrial	professional			
	Derived from the CSR		oral	long term	Not applicable	Not applicable	12.8 mg/kg bw/day		
			inhalation	long term	37.6 mg/m3	37.6 mg/m3	11.1 mg/m3		
			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	
	Exposure limit values		Component	CAS					
			Ammonium Sulphate	7783-20-2	Not established.				
					Worker				
				systemic	industrial	professional			
	Derived from the CSR		oral	long term	Not applicable	Not applicable	6.4 g/kg bw/day		
			inhalation	long term	11.17 g/m3	11.17 g/m3	1.67 g/m3		
			dermal	long term	42.67 g/Kg bw/day	42.67 g/Kg bw/day	12.8 g/kg bw/day		
	PNEC		water		air	soil	microbiological	sediment	oral
			fresh water: 0.312 mg/l salt water: 0.0312 mg/l in intermittent releases: 0.53 mg/l		Not available	62.6 mg/kg of dry soil	16.18 mg/L	0.063 mg/kg of dry sediment.	
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.						
	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.						
	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>									

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SECTION 9		Physical and chemical properties				
9.1	Information on basic physical and chemical properties					
	Aspect	Coloured granules.				
	Colour	Coloured (ocre)				
	Odour	Almost odorless				
	Molecular weight	Not applicable				
	pH	pH aqueous solution (100 g/l) > 3.5.				
	Boiling point	It does not have a boiling point, it decomposes above 210°C				
	Melting point	> 170°C				
	Flash-point	Non flammable				
	Flammability	Non flammable				
	Explosive properties	It is not explosive.				
	Auto-ignition temperature	Non flammable				
	Decomposition temperature	Begins to decompose above 170 °C				
	Lower explosive limit	Not applicable				
	Upper explosive limit	Not applicable				
	Oxidising properties	Not classified as oxidising.				
	Apparent density at 20°C	900 at 1,100 kg/m³				
	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	Additional information	Molecular weight 80 g/mol for Ammonium Nitrate and 132 g/mol for Ammonium Sulphate				
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) This product does not have the property of self-sustaining thermal decomposition. (Trough test. Test UN S.1.)				
10.3	Possibility of hazardous reactions	When it is heated above 170°C it decomposes releasing NOx, Ammonia and SO2. 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. NOx, ammonia and SO2). 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					
	Toxicokinetics, metabolism and distribution	Not available				
	Acute effect	Name of the ingredient	Test	Species	Via	Result
		Ammonium Nitrate	LD50	Rat	Oral	2,085 mg/kg
		Ammonium Sulphate				2000-4250 mg/kg
		Ammonium Nitrate	LD50	Rat	Dermal	> 5000 mg/kg
		Ammonium Sulphate				> 2000 mg/kg
		Ammonium Nitrate	LC50	Rat	Inhalation	> 88.8 mg/l
		Ammonium Sulphate				> 1000 mg/m3 (8 h)
	Skin corrosion/irritation	Prolonged contact may cause discomfort.				
	Serious eye damage/irritation	Prolonged contact may cause discomfort.				
	Respiratory or skin sensitisation	No known significant effects or critical hazards.				
	Germ cell mutagenicity	No known significant effects or critical hazards.				
	Carcinogenicity	No known significant effects or critical hazards.				
	Reproductive toxicity	No known significant effects or critical hazards.				
	STOT-single exposure y STOT-repeated exposure	No known significant effects or critical hazards.				
	Aspiration hazard	No known significant effects or critical hazards.				
	Notes	When used as directed the product is unlikely to have adverse health effects. The dust in contact with skin and eyes may cause discomfort. Ingestion of 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.				

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SECTION 12		Ecological information						
12.1	Toxicity							
	Ecotoxicity	Name of the ingredient	Test	Species	Period	Result		
		Ammonium Nitrate Ammonium Sulphate	EC50	Invertebrate: <i>Daphnia magna</i>	48 h 96 h	490 mg/l (of potassium nitrate) > 100 mg/l		
		Ammonium Nitrate Ammonium Sulphate	EC50	Algae: <i>Benthic diatoms</i> <i>Chlorella vulgaris</i>	10 d 18 d	> 1700 mg/l (of potassium nitrate) 2700 mg/l		
		Ammonium Nitrate Ammonium Sulphate	LC50	Fish: <i>Cyprinus carpio</i> <i>Oncorhynchus mykiss</i>	48h 96h	447 mg/l 173 mg NH3/l		
		Low toxicity to aquatic organisms.						
12.2	Persistence and degradability							
		Name of the ingredient	Degradation					
			Hydrolysis	Photolysis	Biodegradation			
		Ammonium Nitrate Ammonium Sulphate	Non-hydrolysis Not available	No information available There is no evidence of photodegradation.		Not necessary, inorganic substance. Not necessary, inorganic substance.		
12.3	Bioaccumulative potential							
		Name of the ingredient	LogKow or LogPow	Bioconcentration factor				
		Ammonium Nitrate Ammonium Sulphate	Not applicable, inorganic substance.		-----			
12.4	Mobility in soil							
	Very soluble in water. The NO ₃ ⁻ ion is mobile. The NH ₄ ⁺ ion is adsorbed by soil particles.							
12.5	Results of PBT and vPvB assessment							
	In accordance with appendix XIII of the Regulation (EC) no. 1907/2006, it is not PBT or vPvB since it is an inorganic substance.							
12.6	Other adverse effects							
	Heavy spillage may cause an adverse environmental impact such as eutrophication (developing undesirable flora) in confined surface waters. (See section 12). Not expected to constitute a hazard to aquatic organisms. For very high pH values which may be found in natural surface waters, the toxic effect may be increased.							
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	Class	Packing group	Label	Environmental hazards	Special precautions for users
	ADR/RID ADNR IMDG IATA	NOT CLASSIFIED						
14.7	<i>Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable</i>							
SECTION 15		Regulatory information						
15.1	Safety, health and environmental regulations and 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. 374/2001 (Chemical agents) RD. 888/2006, by which is approved the Regulation on 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 carried out for: Ammonium Nitrate and Ammonium Sulphate as substances.							

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SECTION 16	Other information	
	Risk Phrases	None
	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	Version 3 dated 21.07.16
	Modifications made to present revision	Section 2.3, 5.2 and 9.1

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.