Product Safety Data Sheet

Conforms to REGULATION (EU) No. 453/2010

 Group Number
 3

 Version
 1.4

 Issue Date
 May-18

 Last Updated
 Jan-23



Ammonium Nitrate, Calcium Ammonium Nitrate, or Ammonium Sulphate based NS fertilizer containing less than 45% Ammonium Nitrate (Non-hazardous)

1.0	Identification of the substance/mixture and of the company/undertaking						
1.1	Product Identifier						
	Product/Trade name	Glasson Fertilisers 26-00-00+12%SO ₃ , 24-00-00+30%SO ₃ , 25-00-00+20%SO ₃ , or any other AN/AMS blend or CAN/AMS blend containing less than 45% Ammonium Nitrate.					
	Common chemical name	AN based fertilizer, compound fertilizer, complex fertilizer.					
	Synonyms	Not applicable.					
	Chemical formula	Not applicable.					
	EU index number	Not applicable.					
	EC No	Not applicable.					
	CAS No.	Not applicable.					
	REACH Registration Number.	Not applicable as the fertilizer is a mixture.					
	National Product Registration Number, where applicable	Not applicable.					
1.2	Relevant identified uses of the substance or	mixture and uses advised against					
	Use of the substance/mixture	Fertilizer					
	Uses advised against	The use of this substance should be limited to those specified in this SDS.					
1.3	Details of the supplier of the safety data shee	et					
	Manufacturer/Importer/Supplier	Glasson Fertilisers					
		West Quay, Glasson Dock					
		Lancaster, LA2 0DB					
		Tel: +44 (0) 1524 753600					
		fertilizers@glassongrain.co.uk					
1.4	Emergency telephone number	+44 (0)1524 753600 (7:30am - 5:00pm)					

2	Hazards identification			
2.1	Classification of the substance or mixture			
	Classification in accordance with Regulation 1272/2008 (CLP)	Non-hazardous.		
	Hazard Statement(s)	Not applicable		
	Classification in accordance with Directive 67/548 (DSD) Not applicable			
	Risk phrase(s)	Not applicable		
2.2	Label elements			
	Hazard pictogram(s)	None.		
	Signal word	Not applicable		
	Hazard Statement(s)	None.		

	Precautionary statement(s)	P210 P220 P370+P378	Keep away from heat, sparks, open flames & hot surfaces. — No smoking. Keep/Store away from combustible materials & chemicals. In case of fire: Use copious quantities of water. Wash hands thoroughly after handling.			
2.3	Other hazards					
	PBT/vPvB criteria	According to Annex XIII of Regulation (EC) No 1907/2006, no PBT and vPvB assessment has been conducted since ammonium nitrate is inorganic.				
	Other hazards which do not result in classifi	cation				
	Physical and chemical hazards	Fertilizers are basically harmless products when handled correctly. However, the following points should be noted for fire, heating and detonation: The fertilizer is not itself combustible but it can support combustion, even in the absence of air. On heating it melts and further heating can cause decomposition, releasing toxic fumes containing nitrogen oxides, ammonia and other gases depending on composition. It has high resistance to detonation. Heating under strong confinement can lead to explosive behaviour.				
	Health hazards	The fertilizers are basically harmless products when handled correctly. However, prolonged or repeated contact with skin may cause discomfort, ingestion of large quantities may give rise to gastro-intestinal disorders and inhalation of dust at high concentrations may cause irritation of the nose and upper respiratory tract with symptoms such as sore throat and coughing. There are no known long term effects.				
	Environmental hazards	Heavy spillage of nitrate and phosphate may cause adverse environmental impact such as eutrophication in confined surface waters or nitrate contamination. See Section 12.				

Composition/information on ing	gredients						
Mixture							
Hazardous ingredients							
Chemical name	CAS no.	EC no.	Generic REACh Reg No.)	Classification Regulation (EC) No. 1272/2008	Classification Directive 67/548/EEC	% (w/w)	
Ammonium Nitrate	6484-52-2	229-347-8	01-2119490981-27- xxxx	Ox. Sol 3, H272 Eye Irrit. 2, H319	O; R8, Xi; R36	< 70%	
Other ingredients				•			
Ammonium Sulphate	7783-20-2	231-984-1	01-2119455044-46- xxxx	-	-	Variable	
Calcium Carbonate	471-34-1	207-439-9	Exempt	-	-	Variable	
EC no. means EINECS or ELINCS number.							
This safety data sheet is not a guarant	ee of product specification or NPK	value(s). NPK conten	t is specified on sales orders	, customer invoices, o	or product specificati	ons.	

4.0	First aid measures					
4.1	Description of first aid measures	Description of first aid measures				
	General	In some cases medical attention necessary (see below).				
		Remove from source of exposure to dusts. Obtain medical attention if ill effects occur.				
	_	Ingestion Do not induce vomiting. Rinse mouth and then give water or milk to drink. Obtain medical attention if more than a small quantity has been swallowed.				
	Skin contact	Wash the affected area with water.				
	Eye contact Flush/irrigate eyes with copious amounts of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Obtain medical attention if symptoms persist.					
4.2	Most important symptoms and effects, both	acute and delayed				
	Acute effects	Acute effects None known.				
	Delayed effects	None known.				
4.3	Indication of any immediate medical attention	n and special treatment needed				

Note to physician	Inhalation of fire and thermal decomposition gases, containing oxides of nitrogen, ammonia and other toxic gases can
	cause irritation and corrosive effects on the respiratory system. Some lung effects may be delayed. Give oxygen,
	especially if there is blueness around the mouth

5.0	Fire-fighting measures				
5.1	Extinguishing media				
	Suitable extinguishing media If fertilizer is not directly involved in the fire Use the best means available to extinguish the fire If fertilizer is involved in the fire Use plenty of water.				
	Unsuitable extinguishing media	Do not use chemical extinguishers or foams or attempt to smother the fire with steam or sand.			
5.2	Special hazards arising from the substance	or mixture			
	Specific hazards	Potential explosion hazard under fire conditions when severely confined and/or contaminted with incompatible materials (e.g. organic materials, halogenated compounds - see Section 10). Do not allow molten fertilizers to run into drains.			
	Hazardous thermal decomposition and combustion products	Oxides of nitrogen, ammonia and depending on composition HCl etc.			
5.3	Advice for firefighters	'			
	Special fire fighting procedures Open doors and windows of the store to give maximum ventilation. Avoid breathing the fumes (toxic); stand up-wind of the fire. Prevent any contamination of fertilizer by oils or other combustible materials.				
	Special protective equipment for fire- fighters	Use a self-contained breathing apparatus if fumes are being entered.			

6.0	Accidental release measures				
6.1	Personal precautions, protective equipment and emergency procedures	Avoid walking through spilled product and exposure to dust.			
6.2	Environmental precautions Take care to avoid the contamination of watercourses and drains and inform the appropriate authority in case accidental contamination of watercourses.				
6.3	Methods and material for containment and cleaning up	Any spillage of fertilizer should be cleaned up promptly, swept up and placed in a clean labelled open container for safe disposal, avoiding dusty conditions. Do not mix with sawdust and other combustible or organic substances. Dilute any contaminated or fine grained fertilizer 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 emergency contact information, section 8 for personal protective equipment and section 13 for waste disposal.			

7.0	Handling and storage					
	The information in this section contains generic advice and guidance. The list of identified uses given in section 1 should be considered for any use-specific information provided in the Exposure Scenario(s).					
7.1	Precautions for safe handling	Avoid excessive generation of dust. Avoid contamination by combustible (e.g. diesel oil, grease, etc.) and/or other incompatible materials. Avoid unnecessary exposure to the atmosphere to prevent moisture pick-up. When handling the product over long periods use appropriate personal protective equipment, e.g. gloves. Carefully clean all equipment prior to maintenance and repair.				
7.2	Conditions for safe storage, including any incompatibilities	Store in compliance with national and local regulations Locate away from the sources of heat or fire. Keep away from combustible materials and substances mentioned under Section10. On farm, ensure that the fertilizer is not stored near hay, straw, grain, diesel oil, etc. When stored loose, take particular care to avoid mixing with other fertilizers. Ensure high standard of housekeeping in the storage area. Do not permit smoking and use of naked lights in the storage areas. Restrict stack size (according to local regulations) and keep at least 1m distance around the stacks of bagged products. Any building used for the storage should be dry and well ventilated. Where the nature of the bagged product and climatic conditions so require, store under conditions that will avoid product breakdown by thermal cycling (wide variation in temperature). The product should not be stored in direct sunlight to avoid physical breakdown due to thermal cycling. Packaging materials: Plastic synthetic materials, steel and aluminum are suitable. Avoid use of copper and zinc.				
7.3	Specific end use(s)	Fertiliser.				

8.0 Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of identified uses given in section 1 should be considered for any use-specific information provided in the Exposure Scenario(s).

8.1	Control parameters							
	Regulated Exposure limit values	No specific El	U offic	ial limit.				
	Recommended occupational and consumer exposure limit values (following from the performed CSA): For ammonium nitrate	Oral W Dermal 21 Inhalation 37	orkers ot appl 1.3 mg 7.6 mg	licable g/kg bw/day g/m3	General population 12.8 mg/kg bw/day 12.8 mg/kg bw/day 11.1 mg/m3	effects from acute	exposure to the s	substance do not occur.
	For ammonium sulphate	Oral No Dermal 42 Inhalation 11	2.667 i 1.1 mg	licable mg/kg bw/day _l /m3	General population 12.8 mg/kg bw/day 12.8 mg/kg bw/day 11.1 mg/m3 sufficient to ensure that	effects from acute	exposure to the s	substance do not occur.
	PNEC For ammonium nitrate	fresh water: 0 mg/l	.45	marine water: 0.045 mg/l	Intermittent use/release: 4.5 mg/l	Sewage treatment plant: 18 mg/l		
	PNEC For ammonium sulphate	fresh water: 0 mg/l	.312	marine water: 0.0312 mg/l	Intermittent use/release: 0.53 mg/l	Sewage treatment plant: 16.18 mg/l	Freshwater sediment: 3 mg/kg/dw	Soil: 62.6 mg/kg/dw
8.2	Exposure controls Appropriate engineering measures	Avoid high du	st con	icentration and p	provide ventilation where	e necessary.		
	Hygienic measures		•	•	eat, drink or smoke. Wa the working period.	sh hands after han	dling and before e	eating, smoking and
	Individual protection Respiratory system			n is high and/or 149, filters P1).	ventilation is inadequate	e, use suitable dust	mask or respirate	or with an appropriate
	Skin and body	Working cloth	ies.					
	Hands	Wear suitable	glove	es (e.g. plastic, r	ubber or leather) when	handling the produ	ct over long perio	ds.
	Eyes	Use appropria	ate saf	^f ety eye wear de	pending on the task be	ing carried out.		
	Environmental exposure controls	Avoid the contamination of watercourses and drains and inform the appropriate authority in case of accidental contamination of watercourses. Do not flush into surface water or sanitary sewer system.						

9.0	Physical and chemical properties	
	Appearance	White, cream, grey, or brown granules or prills unless deliberately coloured during manufacture.
	Odour	Odourless.
	Odour thrteshold	Not applicable
	рН	Usually > 4.5
	Melting point/freezing point	160-170°C depending on moisture content, ammonuim nitrate main component
	Initial boiling point and boiling range	Decomposes.
	Flash point	Not applicable, as the fertilizer is a mixture of inorganic solids
	Flammability (solid, gas)	Not flammable
	Upper/lower flammability or explosive limits	Not applicable.
	Explosive properties	The fertilizer has a high resistance to detonation. This resistance is decreased by the presence of contaminants and/or high temperatures. Heating under strong confinement (e.g. in tubes or drains) may lead to a violent reaction or explosion especially if there is contamination by some of the substances mentioned under Section 10.
	Auto-ignition temperature	Ammonium nitrate based NPK/NP/NK fertilizer is not combustible.
	Decomposition temperature	May start to decompose above approx. 170°C.
	Minimum ignition energy	Not applicable
	Oxidising properties	Not classified as an oxidizer.
	Critical temperature	Not applicable
	Relative density	Not applicable
	Density	1725 kg/m³ for main ingredient ammonium nitrate as solid material

Loose bulk density Vapour pressure at 20°C Normally between 900-1200 kg/m³. Not applicable

Vapour density	Not applicable
Partition coefficient (n-octanol/water)	Not applicable.
Viscosity	Not applicable
Mean particle size	2-4mm approx.
Water solubility	Pure ammonium nitrate:1920 g/l at 20 °C Hygroscopic - readily picks up moisture from the air.
Surface tension	Not surface active (based on molecular structure)
Other information	
Miscibility	Not applicable
Fat solubility	Not available
Gas group	Not applicable
Remarks	Molecular weight 80 (For main ingredient ammonium nitrate).

10.0	Stability and reactivity		
10.1	Reactivity	Stable under recommended storage and handling conditions (see section 7, handling and storage).	
10.2	Chemaical stability	Stable under recommended storage and handling conditions (see section 7, handling and storage).	
10.3	Possibility of hazardous reactions	When heated can decompose.	
Heating above 170°C (decomposes to gases). Contamination by incompatible materials. Unnecessary exposure to the atmosphere. Sources of heat or fire close to the product. Heating under confinement. Welding or hot work on equipment or plant which may have contained fertilizer without first washing remove all fertilizer.		Contamination by incompatible materials. Unnecessary exposure to the atmosphere. Sources of heat or fire close to the product. Heating under confinement. Welding or hot work on equipment or plant which may have contained fertilizer without first washing thoroughly to	
10.5	Incompatible materials	Combustible materials, reducing agents, acids, alkalis, sulphur, chlorates, chromates, nitrites, permanganates, metallic powders and substances containing metals such as copper, nickel, cobalt, zinc and their alloys.	
10.6	Hazardous decomposition products	For fire situation: see section 5. When strongly heated, it melts and decomposes releasing toxic fumes (e.g. NO _x , ammonia and other gases depending on composition) When in contact with alkaline material such as lime, may give off ammonia gas. See also Sections 2 and 9.	

1.0 Toxicological information				
1.1 Information on toxicological effects				
Toxicokinetics, metabolism and distribution	Not available	Not available		
Acute toxicity	Ingredients			
Acute oral toxicit	/ Ammonium nitrate	LD50: 2950 mg/kg bw (OECD 401)		
Acute dermal toxicit	Ammonium nitrate	LD50: > 5000 mg/kg bw (OECD 402)		
Acute inhalation toxicit	Ammonium nitrate	LC50: > 88.8 mg/l (no guideline followed)		
Acute oral toxicit	Ammonium sulphate	LD50: 2840 mg/kg, rat.		
Acute oral toxicit	Ammonium sulphate LD50: 4540 mg/kg, rat.			
Acute oral toxicit	/ Ammonium sulphate LD50: 640 mg/kg, mouse. / Ammonium sulphate LDLO: 3500 mg/kg, domestic animals. / Ammonium sulphate LD50: >2000 mg/kg, rat.			
Acute oral toxicit				
Acute dermal toxicit				
Acute inhalation toxicit	Ammonium sulphate	>1000 mg/m3, (8 hours TWA), rat.		
Local effects				
Skin irritation	Product	No critical or specific hazard		
Eye irritation	Product	Not classified as irritating; see section 16.		
Sensitisation	Not sensitizing (OECD 429, with magnesium nitrate, nitric acid ammonium calcium salt, sodium nitrate)			
Other	For main ingredient ammonium nitrate			
Sub-acute toxicit	Oral 28-day NOAEL ≥ 1500 mg/kg bw/day (OECD 422, with potassium nitrate)			
	Oral 52-week NOAEL = 256 mg/kg bw/day (OECD 453, with ammonium sulfate) Inhalation 2-weeks NOAEL ≥ 185 mg/m3 (OECD 412)			

•	Negative (OECD 471, 473, with nitric acid ammonium calcium salt) Negative (OECD 476, with potassium nitrate)
Reproductive toxicity	Oral 28-day NOAEL ≥ 1500 mg/kg bw/day (OECD 422, with potassium nitrate)
Carcinogenicity	Not carcinogenic (OECD 453, with ammonium sulphate)
	Adverse health effects are considered unlikely when the product is handled and used correctly. If large quantities are ingested may give rise to gastro-intestinal disorders.

12.0	Ecological information				
12.1	Toxicity				
	Ammonium Nitrate	Fish (short-term)	48-h LC50: 447 mg/l (no guideline followed)		
		Fish (long-term)	No data		
		Daphnia magna (short-term)	48-h EC50: 490 mg/l (no guideline followed, with potassium nitrate)		
		Daphnia magna (long-term)	No data		
		Algae	10-d EC50: > 1700 mg/l (seawater, no guideline followed, performed with potassium nitrate)		
		Inhibition of microbial activity	3-h EC50: >1000 mg/l, NOEC: 180 mg/l (OECD 209, with sodium nitrate)		
	Ammonium Sulphate	Toxicity to fish	LC50: 6.6 - 39.2 mg/l, species Oncorhynchus Mykiss, (rainbow trout), 96 hour period.		
			LC50; >20 mg/l, species Pimephales Promelas, (fathead minnow), 96 hour period.		
		Toxicity to daphnia and other aquatic invertebrates.	LC50; >20 mg/l, species Daphnia Magna, (water flea), 96 hour period.		
12.2	Persistence and degradability	Ingredient name	Ammonium Nitrate		
	Biodegradation	Standard test is not applicable as the r	nixture is inorganic.		
	Hydrolysis	No hydrolysable group is present, will o	completely dissociate into ions.		
		Ingredient name	Ammonium Sulphate		
	Biodegradation	Standard test is not applicable as the r	I nixture is inorganic.		
	Hydrolysis	Not applicable			
		Ingredient name	Calcium Carbonate		
	Biodegradation	Calcium Carbonate is non-volatile and	inert, it is resistant to degradation and will persist in the environment		
	Hydrolysis	Not applicable			
12.3	Bioaccumulative potential	Octanol-water partition coefficient (Kow)	Not relevant as the mixture is inorganic, but considered to be low (based on high water solubility)		
		Bioconcentration factor (BCF)	Low potential for bioaccumulation (based on main ingredient properties).		
12.4	Mobility in soil	Low potential for adsorption (based on Very soluble in water. The NO3- ion is Ammonium Sulphate (S); easily soluble	mobile. The NH4+ ion is adsorbed by soil.		
		Carbonate is resistant to degradation a			
12.5	According to Annex XIII of Regulation (EC) No 1907/2006, no PBT and vPvB assessment has been conducted since ammonium nitrate is inorganic.				
		Ammonium Sulphate, (S), is not consid Carbonate - not applicable.	dered to be PBT or vPvB. Calcium		
12.6	Other adverse effects	Heavy spillage may cause adverse en	vironmental impact such as eutrophication in confined surface waters.		

13.0	Disposal considerations		
	Container	Containers should be cleaned by appropriate method and then re-used or disposed by landfill or incineration as appropriate, in accordance with local and national regulations. Do not remove label until container is thoroughly cleaned.	
	Methods of disposal	Depending on degree and nature of contamination dispose of by use as fertilizer on farm, as raw material for liquid fertilizer, or to an authorised waste facility. Do not empty into drains; dispose of this material and its container in a safe way and in accordance with all applicable local and national regulations. See chapters 06 03 and 06 10 of the list of wastes (Commission decision 2000/532/EC)	
	Package waste disposal	Empty the bag by shaking to remove as much as possible of its contents. If approved by local authorities, empty bags may be disposed of as non-hazardous material or returned for recycling.	
	Note: see section 7 for safe handling and storage		

14.0	Transport information					
		ADR/RID	ADN/ADNR	IMDG	ICAO/IATA	
14.1	UN Number	Not classified	Not classified	Not classified	Not classified	
14.2	UN Proper shipping name	Not applicable	Not applicable	Not applicable	Not applicable	
	Transport hazard class(es)	Not classified	Not classified	Not classified	Not classified	
14.4	Packing group	Not applicable	Not applicable	Not applicable	Not applicable	
	Label	Not applicable	Not applicable	Not applicable	Not applicable	
14.5	Environmental hazards	Not applicable.				
14.6	Special precautions for user	None.				
	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.				

15.0	Regulatory information		
	Safety, health and environmental regulation/legislation specific for the substance or mixture	EC 2003/2003, 96/82 EC; Seveso <i>Directive</i> .	
		Regulation EC 1907/2006 (REACH), EC 2003/2003, 96/82 EC. Decision No 1348/2008/EC of the European Parliament & of the Council and Commission Regulation (EC) No 552/2009. Notification and Marking of Sites Regulations 1990, (NAMOS), (as amended 2013).	
15.2	1	In accordance with REACH Article 14, a Chemical Safety Assessment has been carried out for the main ingredient Ammonium Nitrate as a substance.	

16.0	Other information		
	The information provided in this safety data sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any proceed, unless specified in the text.		
	Classification in accordance with Regulation 1272/2008, as listed in Annex VI:		
	Classification in accordance with Regulation 1272/2008, by self-classification based on the performed CSA	Not classified. No eye irritation (tested on mixtures with similar compositions according to OECD 437 and OECD 405)	
	Risk phrases	R8 Contact with combustible material may cause fire. R36 Irritating to eye.	
	Symbols O oxidizing Xi irritant		
	Abbreviations and acronyms	Oxidizing solids category 3 (Ox. Sol 3) Eye irritation Category 2 (Eye Irrit. 2) Causes serious eye irritation (H319) May intensify fire; oxidisor (H272)	

Training advice	
Date of previous SDS	September 2014
Modifications in this version	None.
References	EFMA/Fertilizers Europe Guidance documents, TFI HPV data; NOTOX gap analysis

Disclaimer

The information in this Safety Data Sheet is given in good faith and belief in its accuracy based on our knowledge of the substance/preparation concerned at the date of publication. It does not imply the acceptance of any legal liability or responsibility whatsoever by Glasson Fertilizers for the consequences of its use or misuse in any particular circumstances.

Glasson Fertilisers

West Quay, Glasson Dock

Lancaster

LA2 0DB

