

Product Safety Data Sheet

Conforms to REGULATION (EU) No. 453/2010



Group Number	7
Version	1.4
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Urea Blends

1.0	Identification of the substance/mixture and of the company/undertaking	
1.1	Product Identifier	
	Product/Trade name	Glasson Fertilisers Urea blends including 40-00-00+10%SO ₃ , 38-00-00+19SO ₃ , 33-00-00+30SO ₃ , 29-05-05, and any other Urea based blend. (Not inclusive of Feed Grade Urea).
	Common chemical name	Urea fertilizer, compound fertilizers
	Synonyms	Not applicable.
	Chemical formula	Not applicable.
	EU index number	Not applicable.
	EC No	200-315-5
	CAS No.	57-13-6
	REACH Registration Number.	01-2119463277-33
	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 sheet	
	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)	None
2.3	Other hazards	Ensure adequate ventilation, especially in confined areas.

PBT/vPvB criteria	According to Annex XIII of Regulation (EC) No 1907/2006, no PBT and vPvB assessment has been conducted.
Other hazards which do not result in classification	
Physical and chemical hazards	Straight Urea fertilizers are non-hazardous, non-combustible and non-oxidising. However, the following points should be noted for fire and thermal decomposition products: Hazardous decomposition products formed under fire conditions; Carbon monoxide, (CO), Carbon dioxide, (CO ₂), Nitrogen oxides, (NO _x), ammonia, nitrous gases.
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; mucous membranes and upper respiratory tract with symptoms such as sore throat and coughing. Prolonged eye contact may cause some irritation. Persons who may have inhaled hazardous decomposition nitrous gases must be laid down and kept rested. Call a doctor immediately. Persons who have inhaled fire effluents require medical observation for at least 48 hours. Symptoms of poisoning may even occur several hours after the incident.
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.

3 Composition/information on ingredients						
Mixture						
Chemical name	CAS no.	EC no.	Generic REACh Reg No.)	Classification Regulation (EC) No. 1272/2008	Classification Directive 67/548/EEC	% (w/w)
Urea	57-13-6	200-315-5	01-2119463277-33	-	-	Variable
Ammonium Sulphate	7783-20-2	231-984-1	01-2119455044-46-xxxx	-	-	Variable
Triple Superphosphate	65996-95-4	266-030-3	01-2119493057-33-xxxx	Eye Dam. 1, H318	Xi;R41	Variable
Diammonium Phosphate	7783-28-0	231-987-8	01-2119490974-22-xxxx	-	-	Variable
Monoammonium Phosphate	7722-76-1	231-764-5	01-2119488166-29-xxxx	-	-	Variable
Potassium Chloride	7447-40-7	231-211-8	Exempt	-	-	Variable
Magnesium Sulphate	14168-73-1	231-298-2	Exempt	-	-	Variable
Calcium Carbonate	471-34-1	207-439-9	Exempt	-	-	Variable
Potassium Sulphate	7778-80-5	231-915-5	01-2119489441-34-xxxx	-	-	Variable
EC no. means EINECS or ELINCS number.						
<i>This safety data sheet is not a guarantee of product specification or NPK value(s). NPK content is specified on sales orders, customer invoices, or product specifications.</i>						

4.0 First aid measures	
4.1 Description of first aid measures	
	<p>General In some cases medical attention necessary (see below).</p> <p>Inhalation Remove from source of exposure to dusts. Obtain medical attention if ill effects occur.</p> <p>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.</p> <p>Skin contact Wash the affected area with water.</p> <p>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.</p>
4.2 Most important symptoms and effects, both acute and delayed	
Acute effects	Symptoms include itching, burning, redness, and tearing of eyes.
Delayed effects	None known.

4.3	Indication of any immediate medical attention and special treatment needed	
	Note to physician	Treat symptomatically. Contact poison centre specialist immediately if large quantities have been ingested or inhaled.

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 The product is not flammable. 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	Where combustible material is the source of the fire, extinguish this source as a matter of priority. Do not allow molten fertilizers to run into drains. If fire run-off water enters any water course or drains, inform the appropriate water authority immediately
Hazardous thermal decomposition and combustion products	Hazardous decomposition products formed under fire conditions; Carbon monoxide, (CO), Carbon dioxide, (CO ₂), Nitrogen oxides, (NO _x), ammonia, nitrous gases. Persons who may have inhaled nitrous gases must be laid down and kept rested. Call a doctor immediately. Persons who have inhaled fire effluents require medical observation for at least 48 hours. Symptoms of poisoning may even occur several hours after the incident.
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 of 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.
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 Section 10. 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 EU official limit.												
	Recommended occupational and consumer exposure limit values (following from the performed CSA): For Urea	Exposure pattern Derived No Effect Level (DNEL) <table border="0"> <tr> <td></td> <td>Workers</td> <td>General Population</td> </tr> <tr> <td>Oral</td> <td>42 mg/kg bw/day</td> <td>42 mg/kg bw/day</td> </tr> <tr> <td>Dermal</td> <td>580 mg/kg bw/day</td> <td>580 mg/kg bw/day</td> </tr> <tr> <td>Inhalation</td> <td>292 mg/m³</td> <td>125 mg/m³</td> </tr> </table> <p>The long-term DNEL is considered sufficient to ensure that effects from acute exposure to the substance do not occur.</p>		Workers	General Population	Oral	42 mg/kg bw/day	42 mg/kg bw/day	Dermal	580 mg/kg bw/day	580 mg/kg bw/day	Inhalation	292 mg/m ³	125 mg/m ³
	Workers	General Population												
Oral	42 mg/kg bw/day	42 mg/kg bw/day												
Dermal	580 mg/kg bw/day	580 mg/kg bw/day												
Inhalation	292 mg/m ³	125 mg/m ³												
	PNEC For Urea	fresh water: 0.47 mg/l marine water: 0.047 mg/l Intermittent use/release: not given Sewage treatment plant: not given												
8.2	Exposure controls													
	Appropriate engineering measures	Avoid high dust concentration and provide ventilation where necessary.												
	Hygienic measures	When handling the product do not eat, drink or smoke. Wash hands after handling and before eating, smoking and using the lavatory and at the end of the working period.												
	Individual protection													
	Respiratory system	If dust concentration is high and/or ventilation is inadequate, use suitable dust mask or respirator with an appropriate filter (e.g. EN 143, 149, filters P1).												
	Skin and body	Working clothes.												
	Hands	Wear suitable gloves (e.g. plastic, rubber or leather) when handling the product over long periods.												
	Eyes	Use appropriate safety eye wear depending on the task being 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, grey, red, or brown granules or prills unless deliberately coloured during manufacture.
	Odour	Odourless.
	Odour threshold	Not applicable
	pH	Usually > 4.5
	Melting point/freezing point	160-170°C depending on moisture content, ammonium 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	Product does not present an explosion hazard
	Auto-ignition temperature	Not determined
	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	Normally 1.33g/cm ³ at 20°C
	Loose bulk density	Normally between 750-900 kg/m ³
	Vapour pressure at 20°C	0.002kPa

Vapour density	Not applicable
Partition coefficient (n-octanol/water)	1.73 log POW at 20°C
Viscosity	Not applicable
Mean particle size	2-4mm approx.
Water solubility	Not applicable
Surface tension	Not surface active (based on molecular structure)
Other information	
	Miscibility Not applicable
	Fat solubility Not available
	Gas group Not applicable
	Remarks No further information available

10.0 Stability and reactivity	
10.1 Reactivity	Stable under recommended storage and handling conditions (see section 7, handling and storage).
10.2 Chemical stability	Stable under recommended storage and handling conditions (see section 7, handling and storage).
10.3 Possibility of hazardous reactions	When heated can decompose.
10.4 Conditions to avoid	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 thoroughly to remove all fertilizer.
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. Ammonium Nitrate and Ammonium Nitrate based fertilizers, strong oxidants, acids, nitrites and other nitrosing agents. Urea reacts with calcium hypochlorite or sodium hypochlorite to form the explosive nitrogen trichloride.
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.

11.0 Toxicological information	
11.1 Information on toxicological effects	
Toxicokinetics, metabolism and distribution	Not available
Acute toxicity	Ingredients
Acute oral toxicity	Urea LD50: 14300 mg/kg rat, male
Acute oral toxicity	Diammonium phosphate LD50: > 2000 mg/kg, rat, (OECD 425)
Acute dermal toxicity	Diammonium phosphate LD50: > 5000 mg/kg, rat, (OECD 402)
Acute inhalation toxicity	Diammonium phosphate LC50: > 5 mg/l, rat, 4hr duration of exposure, (OECD 403)
Acute oral toxicity	Potassium Chloride LD50: > 3020 mg/kg
Acute oral toxicity	Ammonium sulphate LD50: 2840 mg/kg, rat.
Acute oral toxicity	Ammonium sulphate LD50: 4540 mg/kg, rat.
Acute oral toxicity	Ammonium sulphate LD50: 640 mg/kg, mouse.
Acute oral toxicity	Ammonium sulphate LDLO: 3500 mg/kg, domestic animals.
Acute dermal toxicity	Ammonium sulphate LD50: >2000 mg/kg, rat.
Acute inhalation toxicity	Ammonium sulphate >1000 mg/m ³ , (8 hours TWA), rat.
Local effects	
	Skin irritation Product No irritating effect
	Eye irritation Product No irritating effect
Sensitisation	No known significant effects or critical hazards to skin
Other	

	Sub-acute toxicity	Oral 52-week LOAEL = 2250 mg/kg bw/day, (rat). Specific Target Organ Toxicity - Single exposure; No classification. Repeated exposure; No classification. Aspiration hazard; Not relevant. Toxicokinetics, metabolism and distribution; This substance and its metabolites do not accumulate in the organism but are excreted completely. Inhalation; Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
	Mutagenicity	No known significant effects or critical hazards.
	Reproductive toxicity	No known significant effects or critical hazards.
	Carcinogenicity	No known significant effects or critical hazards.
	Remarks	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	Contains no substances known to be hazardous to the environment.
	Urea	Fish LC50: 6810mg/l, species Leuciscus Idis, (Orfe), 96 hour period.
		Daphnia magna LC50; 10000 mg/l, species Daphnia Magna, (water flea), 48 hour period.
	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.
	Diammonium Phosphate	Acute algae toxicity EC50: > 100 mg/l, EC10/LC10 or NOEC = 100mg/l for freshwater algae, species; Selanastrum capricornutum, 72 hour period.
	Potassium Chloride	Fish LC50: 880 mg/l, species Pimephales Promelas, (fathead minnow), 96 hour period, OECD Test Guideline 203.
		Daphnia magna EC50: 440 - 880 mg/l, species Daphnia Magna, (water flea), 48 hour period, OECD Test Guideline 202.
		Algae EC50: >100 mg/l, species Desmodesmus Subspicatus, (green algae), 72 hour period, OECD Test Guideline 201.
		Bacteria EC50: >1000mg/l, activated sludge, 3 hour period, OECD Test Guideline 209.
12.2	Persistence and degradability	Ingredient name Urea
	Biodegradation	Standard test is not applicable as the mixture is inorganic.
	Hydrolysis	No hydrolysable group is present, will completely dissociate into ions.
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	Urea; Soluble in water. Predicted to have a high mobility in soil. No further relevant information available.
12.5	Results of PBT and vPvB assessment	Not applicable
12.6	Other adverse effects	Heavy spillage may cause adverse environmental 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.
<i>Note: see section 7 for safe handling and storage</i>	

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	
14.3	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.				
14.7	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.				

15.0 Regulatory information		
15.1	Safety, health and environmental regulation/legislation specific for the substance or mixture	None applicable
	Other regulations	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.
15.2	Chemical safety assessment	In accordance with REACH Article 14, a Chemical Safety Assessment has been carried out for the main ingredient Urea 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:	None.
Classification in accordance with Regulation 1272/2008, by self-classification based on the performed CSA	Not classified.
Risk phrases	None.
Symbols	None.
Abbreviations and acronyms	
Training advice	
Date of previous SDS	September 2014
Modifications in this version	None.

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.

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