

Safety Data Sheet number 4

Non Road Hazardous Blended Fertiliser

AN inclusion <10% TSP inclusion >3%

According to EC-Regulations 1907/2006 (REACH) & 1272/2008 (CLP)



1 Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product/Trade name : OPK, Low NPK, Low NPK with SO₃
Synonyms : OPK Fertilisers, NPK Fertilisers, NPK+SO₃ Fertilisers
EC No : not applicable as fertiliser is a mixture
CAS No. : not applicable as fertiliser is a mixture
REACH Registration Number. : not applicable as fertiliser is a mixture

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Fertilizer
Uses advised against : This mixture should be limited to use as a fertiliser.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Importer/Supplier : Thomas Bell & Sons Ltd
Address : Bigby Road, Brigg. DN20 8RA
Telephone number : 01652 652933

1.4 Emergency telephone number

Telephone number : 01652 652933


2 Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation 1272/2008 (CLP) : Eye Dam 1, H318



: H318 - Causes serious eye Damage
Hazard Statement(s) :
:

Classification in accordance with Directive 67/548 (DSD) :  Xi; Irritant

Risk phrase(s) : R41 - Risk of serious damage to eyes
:

2.2 Label elements

Contains : Superphosphates, concentrated.

Hazard pictogram(s) :



Signal word : Danger
: H318 - Causes serious eye damage

Hazard Statement(s) :
:

Precautionary statements : Prevention • P280 - Wear eye protection.

2.2 Label elements cont....

- :
 : Response • P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.
 :
 : Remove contact lenses, if present and easy to do. Continue rinsing.
 :
 : P310 - Immediately call a POISON CENTRE or doctor/physician.
 : Storage • Store away from incompatible materials.
 : Disposal • P501 - Dispose of contents/container in accordance with local/regional/
 : national/international regulations.



2.3 Other hazards

Not a PBT or vPvB mixture based on ingredients.

3 Composition/information on ingredients

3.1 substance

Hazardous ingredients

Chemical name	CAS no.	EC no.	Generic REACH Registration No.	Classification Regulation (EC) No. 1272/2008 Directive 67/548 (DSD)	% (w/w)
Ammonium Nitrate	6484-52-2	229-347-8	01-2119490981-27-XXXX	 Eye Irrit. 2, H319 Xi; R36 Ox. Sol 3, H272 O; R8	<10
Triple Super Phosphate	65996-95-4	266-030-3	01-2119493057-33-XXXX	 Eye Dam. 1, H318 Xi; R41	>3

Other ingredients

Potassium Chloride (Potash)	7447-40-7	231-211-8	exempt	none	upto 80
Ammonium Sulphate	7783-20-2	231-984-1	01-2119455044-46-XXXX	none	upto 80
Di Ammonium Phosphate	7783-28-0	231-987-8	01-21194900974-22-XXXX	none	upto 80
Calcium Carbonate	1317-65-3	231-900-3	exempt	none	upto 20
Dolomite	16389-88-1	240-440-2	exempt	none	upto 80
10-26-26 NPK Compound	Not registered as mixture of DAP, Potash and Ammonium Sulphate.		exempt	none	upto 80
Calcium Ammonium Nitrate	Not registered as mixture of Ammonium Nitrate and Dolomite		exempt	none	upto 80

EC no. means EINECS or ELINCS number.

4 First aid measures

4.1 Description of first aid measures

- General : In some cases medical attention necessary (see below).
- Inhalation : Move to fresh air.
 - : Obtain medical attention if ill effects occur.
- Ingestion : Do not induce vomiting unless instructed to do so by physician.
 - : Rinse mouth thoroughly with water or milk.
 - : If patient is conscious 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 : refer to section 11.
- Delayed effects : refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed

- Note to physician : Inhalation of fire and thermal decomposition gases, containing oxides of nitrogen and ammonia, 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 Fire-fighting measures

5.1 Extinguishing media

- Suitable extinguishing media : flood with plenty of water.
- unsuitable extinguishing media : chemical extinguishers, foam extinguishers.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture : Potential explosion hazard under fire conditions when severely confined and/or contaminated with incompatible materials (e.g. organic materials, halogenated compounds - see Section 10)
 - : Do not allow molten fertilizers to run into drains.
- Hazardous thermal decomposition products : Oxides of nitrogen and ammonia.

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 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Keep unauthorised personnel away.
- Do not walk through spilled material.
- Avoid exposure to dust.
- Wear appropriate personal protective equipment.

6.2 Environmental precautions

- Prevent the contamination of watercourses and drains and sewage systems 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.

6.3 Methods and material for containment and cleaning up cont....

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 Handling and storage

7.1 Personal precautions, protective equipment and emergency procedures

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.

7.1 Personal precautions, protective equipment and emergency procedures cont....

Avoid unnecessary exposure to the atmosphere to prevent moisture pick-up.

When handling the product use appropriate personal protective equipment (see section 11).

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).

Packaging materials: Plastic synthetic materials. Keep packaging sealed.

7.3 Specific end use(s)

Fertilizer

8.1 Control parameters

Derived No Effect Level (DNEL)				
Components	Type	Route	Value	Form
Ammonium Nitrate (6484-52-2)	Workers	Dermal	21.3 mg/kg/day	Long-term - systemic effects
		Inhalation	37.6 mg/m ³	Long-term - systemic effects
	General population	Dermal	12.8 mg/kg	Long-term - systemic effects
		Inhalation	11.1 mg/m ³	Long-term - systemic effects
		Oral	12.8 mg/kg	Long-term - systemic effects

Predicted No effect Level Concentrations (PNECs)			
Components	Type	Route	Route
Ammonium Nitrate (6484-52-2)	Aqua (freshwater)	n/a	0.45 mg/l
	Aqua (intermittent releases)	n/a	4.5 mg/l
	Aqua (marine water)	n/a	0.045 mg/l
	Sewage Treatment Plant	n/a	18 mg/l

Derived No Effect Level (DNEL)				
Components	Type	Route	Value	Form
Super phosphates (65996-95-4)	Workers	Dermal	17.4 mg/kg/day	Long-term - systemic effects
		Inhalation	3.1 mg/m ³	Long-term - systemic effects

Predicted No effect Level Concentrations (PNECs)			
Components	Type	Route	Route
Super phosphates (65996-95-4)	Aqua (freshwater)	n/a	1.7 mg/l
	Aqua (intermittent releases)	n/a	17 mg/l
	Aqua (marine water)	n/a	0.17 mg/l
	Sewage Treatment Plant	n/a	10 mg/l

8.2 Exposure controls

Appropriate engineering measures : Ventilate as needed to control dust.

Hygienic measures : When handling the product do not eat, drink or smoke.

: Wash hands after handling and before eating, smoking, using the lavatory and end of working period.

: Remove and isolate contaminated clothing. Launder contaminated clothing before reuse.

Individual protection

Respiratory system : If dust concentration is high and/or ventilation is inadequate, use respiratory equipment with particle filter type P2.

8.2 Exposure controls cont....

- Skin and body : Working clothes.
- Hands : Wear suitable gloves (e.g. plastic, rubber or leather) when handling the product over long periods.
- Eyes : Use dust-resistant safety goggles where there is danger of eye contact. (EN166)
- Environmental exposure controls : Inform the appropriate authority in case of accidental contamination of watercourses.
- : Do not flush into surface water or sanitary sewer system.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : mixture of
- Odour : Slight
- Odour threshold : n/a
- pH : typically > 4.5
- Melting point/freezing point : Decomposes before melting
- Initial boiling point and boiling range : Decomposes before boiling
- Flash point : n/a
- Flammability (solid, gas) : Not available
- Upper/lower flammability or explosive limits : Not available
- 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 : n/a
- Decomposition temperature : >200°C.
- Minimum ignition energy : n/a
- Oxidising properties : Can support combustion and oxidize, may intensify fire.
- Critical temperature : n/a
- Density : Typically 0.9 - 1.2 kg/litre
- Loose bulk density : 1.1 kg/litre
- Vapour pressure at 20°C : Considered negligible (based on melting and boiling point).
- Vapour density : Not available
- Partition coefficient : Not available
- Viscosity : n/a
- Mean particle size : 1-4 mm
- Water solubility : moderate
- Surface tension : n/a

10 Stability and reactivity

10.1 Information on basic physical and chemical properties

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

Avoid thermal decomposition

Contamination by incompatible materials.

10.4 Conditions to avoid cont....

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. water

10.5 Incompatible materials

Combustible materials, reducing agents, acids, alkalis, sulphur, chlorates, chlorides, 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).

When in contact with alkaline material such as lime, may give off ammonia gas.

See also Sections 2 and 9.

11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity	Type	Species	result
Ammonium Nitrate (6484-52-2)	Inhalation LC50	Rat	>88.8 mg/m ³
	Dermal LD50	Rat	>2980 mg/kg
	Oral LD50	Rat	> 5000mg/kg
Acute toxicity	Type	Species	result
Super phosphates (65996-95-4)	Inhalation LC50	Rat	>5g/m ³
	Dermal LD50	Rat	>5g/kg
	Oral LD50	Rat	>2g/kg

Local effects

Skin irritation : no significant irritation expected other than possible mechanical irritation.

Eye irritation : Ammonium Nitrate : Causes serious eye irritation

: Super phosphates : Causes serious eye damage

Sensitisation : not classified

Mutagenicity : not classified

Reproductive toxicity : not classified

Carcinogenicity : This product is not considered to be a carcinogen by IARC, ACGIH, NTP or OSHA

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 Ecological information

12.1 Information on toxicological effects

This material is not classified as environmentally hazardous. However, this does not exclude the possibility that a large spill could have a harmful or damaging effect on the environment.

Aquatic	Type	Species	result
Ammonium Nitrate (6484-52-2)	LC50	Fish	447 mg/l 48 hours
	LC50	Daphnia	490 mg/l 48 hours
	EC50	Algae	1700 mg/l 72 hours
Aquatic	Type	Species	result
Super phosphates (65996-95-4)	LC50	Daphnia	1790 mg/l 72 hours
	LC50	Rainbow Trout	85.9 mg/l 96 hours

12.2 Persistence and degradability

- Biodegradation : Standard test is not applicable as the substance 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

Low potential for adsorption (based on main ingredient properties). Very soluble in water. The NO₃⁻ ion is mobile. The NH₄⁺ ion is adsorbed by soil.

12.5 Results of PBT and vPvB assessment

Not a PBT or vPvB mixture based on ingredients.

12.6 Other adverse effects

Heavy spillage may cause adverse environmental impact such as eutrophication in confined surface waters.

13 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.
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.

14 Transport Information

14.1 Un Number

- ADR/RID : not classified
ADN/ADNR : not classified
IMDG : not classified
ICAO/IATA : not classified

14.2 UN Proper shipping name

- ADR/RID : not regulated as dangerous goods
ADN/ADNR : not regulated as dangerous goods
IMDG : not regulated as dangerous goods
ICAO/IATA : not regulated as dangerous goods

14.3 Transport hazard class(es)

- ADR/RID : not classified
ADN/ADNR : not classified
IMDG : not classified
ICAO/IATA : not classified

14.4 Packing group and label

- ADR/RID : not classified
ADN/ADNR : not classified

14.4 Packing group and label cont....

IMDG : not classified

ICAO/IATA : not classified

14.5 Environmental hazards

not applicable

14.6 Special Precautions for user

see section 8

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

15 Regulatory information

15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture

This product is classified and labelled in accordance with Regulation (EC) 1272/2008 - CLP Regulation.
This Safety Data Sheet complies with the requirements of Regulation No 1907/2006 - REACH

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out - see attached exposure scenario

16 Regulatory information

Abbreviations and acronyms

IMDG : International Maritime Code for Dangerous Goods
ADR : European Agreement for the Carriage of Dangerous Goods by Road
RID : European Agreement for the Carriage of Dangerous Goods by Rail
ICAO : International Civil Aviation Organisation
IATA : International Air Transport Association
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
CLP : Classification, Labelling and Packaging
CAS : Chemical Abstracts Service
vPvB : Very persistent and very Bioaccumulative

Disclaimer

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.

Version 1
9th April 2017