

INTRODUCTION

This Safety Data Sheet applies exclusively to products manufactured or marketed by Bartholomews Agri Food Ltd. It does not apply to any other product of similar name or nature. The products covered will be clearly identified by the name of the company on the associated labels and/or documents. Qualifying product will be marked as follows:

SDS GROUP 7

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1 Identification of the Substance/preparation

Includes: NPK Blends using CAN or UREA
Diammonium Phosphate (DAP)

1.2 Use

As a fertiliser.

1.3 Company

Bartholomews Agri Food Ltd.
Portfield Chichester West Sussex PO19 7TT
Telephone: 01243 784171
E mail: colinburton@bartholmews.co.uk

1.4 Emergency Telephone

National Chemical Emergency Centre
Telephone: +44 (0) 1865 407333
Hours of Operation 24h

2. HAZARDS IDENTIFICATION

2.1 Regulatory Classification

These fertiliser preparations are not classified as dangerous materials according to EC Directive 67/548/EEC or 1999/45/EC.

2.2 Physicochemical hazards

These fertilisers are not themselves hazardous.

2.3 Human Health

Products are of a low toxicity but prolonged skin or eye contact may cause some irritation.

Ingestion: Small quantities are unlikely to cause toxic effects.

Large quantities may give rise to gastro-intestinal disorders.

Inhalation: Low toxicity dust but high concentration of airborne material may cause irritation of the nose and upper respiratory tract with symptoms such as sore throat and coughing. Generally regarded as a nuisance dust with no specific official Occupational Exposure Limit (OEL). Recommend a total inhalable dust standard for nuisance dust of 10 mg/m³ as an 8 hour Time Weighted Average. See HSE Guidance Notes EH40/2005 and HSG 173.

Molten material: Will cause burns and inhalation of decomposition gases (eg in a fire) may cause serious

delayed lung effects.

Fire and thermal decomposition products: Inhalation of decomposition gases, containing oxides of nitrogen and ammonia, can cause irritation and corrosive effects on the respiratory system. Some lung effects may be delayed.

2.4 Environment

As these fertilisers contain phosphate, heavy spillage may cause adverse environmental impact such as eutrophication in confined surface waters. See Section 12.

2.5 Other Hazards

On heating it melts and further heating can cause decomposition, releasing toxic fumes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

These products may contain some or all of the following ingredients. Ammonium sulphate, urea, mono and di-ammonium phosphate, normal (single) superphosphate, triple superphosphate, phosphate rock, potassium chloride (muriate of potash), potassium sulphate, calcium nitrate, urea formaldehyde, inert fillers such as sand or limestone, calcium sulphate and coating materials, such as oil, amine, clay or talc, secondary nutrients and/or micro-nutrients.

4. FIRST AID MEASURES

4.1 Product

Skin contact: wash the affected area with soap and water

Eye contact: irrigate eyes with copious amounts of eyewash solution or water for at least 10 minutes. Obtain medical advice if symptoms persist.

Ingestion: **do not** induce vomiting. Give milk or water to drink. Obtain medical attention if more than small quantities have been swallowed.

Inhalation: remove from source of exposure to dust. Keep warm and at rest. Obtain medical advice if symptoms persist.

4.2 Fire and Thermal Decomposition Products

Skin contact: wash areas in contact with molten material. Wash copiously with cold water. Seek medical advice.

Inhalation: remove from source of exposure to fumes. Keep warm and at rest.

5. FIRE-FIGHTING MEASURES

When the fertiliser is **not** directly involved in the fire use the best means available to control the fire.

When the fertiliser is involved:-

- Evacuate the area.
- Avoid breathing the fumes. Wear an approved self-contained breathing apparatus when fighting a fire or when fumes are being emitted.
- Call the fire brigade.
- Fight the fire from upwind and from outside the buildings, if possible.
- Open doors and windows to give maximum ventilation.
- Use plenty of water.
- Where combustible material is the source of the fire, extinguish this source as a matter of priority.
- Do not allow molten fertiliser to run into drains.
- If fire run-off water enters any drain or water course, inform the appropriate water authorities immediately.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions

Do not smoke. Avoid dust inhalation. Avoid contact with decomposition products. See also section 8.

6.2 Environmental protection

Clean up spillage promptly and place in a clean appropriately labelled container. Do not allow to mix with combustible or organic substances.

Inform the appropriate water authority in the event of accidental watercourse contamination.

6.3 Methods for cleaning up

Wash contaminated area with large quantities of water.

6.4 Disposal

See sections 13.

7. HANDLING AND STORAGE

7.1 Handling:

Avoid prolonged contact with skin.
 Avoid producing and inhaling dust. See also section 8.
 Avoid contamination by materials such as diesel oil, grease and other combustible and incompatible materials.
 Avoid unnecessary exposure to the atmosphere to prevent moisture pick-up.
 Avoid application of heat.

7.2 Storage:

The basic requirements are the avoidance of involvement in a fire or contamination.

Locate away from sources of heat, fire or explosion.

Keep away from combustible materials and chemical substances taking particular care on farms to ensure that it is not stored near straw, grain, diesel, etc.

Ensure high standard of house-keeping in the storage areas.

Do not permit smoking or the use of naked lights in the storage area.

Ensure that any contaminated product or spillage is segregated from normal product and disposed of in conformity with section 13.

Buildings used for storage should be dry and well ventilated; stacks therein should be at least 1 metre from walls, eaves and beams.

7.3 Packaging Materials

Polyethylene (PE), polypropylene (PP) and PTFE.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Workplace Exposure Limits (WEL)

EH40/2005 Workplace Exposure Limits (published by HSE) specify for dust:

TWA 10 mg/m³ (inhalable)

TWA 4 mg/m³ (respirable)

Note: limestone is a listed substance in Table 1 in EH40/2005.

8.2 Precautionary and engineering measures

Avoid high dust concentration and provide ventilation where necessary.

8.3 Personal Protection

Wear suitable gloves when handling the product over long periods.

Use suitable dust respirator if dust concentration is high.

After handling product, wash hands and observe good hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance White grey or brown granules or prills unless deliberately coloured during manufacture.

Odour Odourless.

pH water solution Usually > 4.5.

Bulk density Normally between 900-1100 kg/m³.

Solubility in water Soluble in water, extent depends on

Composition.

Most formulations are hygroscopic.

10. STABILITY AND REACTIVITY

10.1 Stability

Stable under normal conditions of storage, handling and use.

10.2 Conditions to Avoid

High temperature, contamination by incompatible / combustible materials, application of heat and confinement e.g. welding or hot work on equipment or plant which may have contained fertiliser without first washing thoroughly to remove all fertiliser.

10.3 Materials to Avoid

Combustible and incompatible/organic materials, reducing agents: acids,alkalis,metal powders,zinc,copper and their alloys/salts, chromates, chlorates and reducing agents.

10.4 Hazardous decomposition products

Thermally decomposes when heated strongly, with molten material starting to form between 160-170 C. If decomposition occurs, gases/toxic fumes produced may include water vapour, oxides of nitrogen, hydrogen chloride and ammonia. Decomposition may be accelerated by certain substances : see 10.3

Liberates ammonia when in contact with alkalies e.g. Caustic Soda, Soda Ash.

NB This fertiliser has a high resistance to detonation. This resistance is decreased by a number of scenarios e.g the presence of contaminants and/or high temperature. Heating in a confined space (tube or drain) may lead to a violent reaction or explosion, especially if contaminated by certain substances (above)

11. TOXICOLOGICAL INFORMATION

Products can be expected to be of a low toxicity.
See section 2.3

11.1 Acute Toxicity

Product toxicity will depend on the composition.

Ammonium sulphate:

LD₅₀ (oral, rat) > 2000mg/kg

Monoammonium phosphate:

LD₅₀ (oral, rat) > 2000mg/kg

Diammonium phosphate:

LD₅₀ (oral, rat) > 2000mg/kg

Potassium chloride or sulphate:

LD₅₀ (oral, rat) > 2000mg/kg

Calcium nitrate:

LD₅₀ (oral, rat) 2100mg/kg

11.2 Contact: Prolonged contact may cause irritation of the skin and mucous tissues.

11.3 Inhalation: Prolonged exposure to dust may cause irritation

11.4 Ingestion: Small quantities unlikely to cause toxic effect. Large quantities may give rise to gastro-intestinal disorders.

11.5 Sensitisation: None reported.

11.6 Chronic or Long-term Effects: None reported.

12. ECOLOGICAL INFORMATION

Products can be expected to be of a low toxicity.

12.1 Eco toxicity

Low toxicity to aquatic life.

12.2 Mobility

Fertiliser soluble in water.

12.3 Persistence/Degradability

The ammonium ion is adsorbed by soil particles. Phosphates, whether water or citrate soluble, are trans located in the soil over very short distances and are then immobilised. The dissolved potassium ion in the soil solution is adsorbed by clay minerals; where these are absent in light soils part of the potassium may be leached.

12.4 Bio-accumulation

The product does not show any bio-accumulation phenomena.

12.5 Other Data

(Companies should add any relevant information).

13. DISPOSAL CONSIDERATIONS

Depending on the degree and nature of contamination/physical deterioration and quantity of the material, dispose of by use on farm as a fertiliser on farm, by spreading thinly on open ground or to an authorised waste facility. Take care to avoid the contamination of watercourses and drains.

Measures should be taken to completely empty the bag of its contents, ensuring that residues of fertiliser do not contaminate the packaging during disposal (incineration, recycling, land filling etc).

14. TRANSPORT INFORMATION

14.1 UN classification

Not classified, i e considered non-hazardous material according to the UN Orange Book and international transport codes e g RID (rail), ADR (road) and IMDG (sea).

Do not transport with combustible materials, see 10.3.

Ensure that the transport is clean before loading the product.

15. REGULATORY INFORMATION

15.1 EC Regulations & Directives

Regulation 2003/2003/EC relating to fertilisers, OJ 304/1 20.11.2003.

15.2 National Regulations

The Fertilisers Regulations 1991, SI No. 2197 (as amended in 1995 and 1998).

The EC fertilizers (England and Wales) Regulations 2006, SI No. 2486.

16. OTHER INFORMATION

Sources of Data and References

Guidance for the Storage, Handling and Transportation of Solid Mineral Fertilizers (EFMA), 2007.

This safety data sheet provides health and safety information. The product is to be used in applications consistent with best farming practice. Individuals handling this product should be informed under COSHH of the recommended safety precautions and should have access to this information. The product information in this data sheet is to the best of the Bartholomews Agri Food Ltd. knowledge correct as at the date of publication.

Bartholomews Agri Food Ltd. accepts no liability for any loss or damage (other than that arising from death or personal injury caused by negligence if proved) resulting from reliance on this information. Further information on individual products covered by this safety data sheet may be obtained from the Supplier or the Company whose name, address and telephone number will be found on the fertiliser container.