

**MATERIAL SAFETY DATA SHEET**

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

**Product:** J Arthur Bower's Growmore NPK: 7-7-7  
**Supplier:** William Sinclair Horticulture  
Firth Road  
Lincoln  
Lincolnshire  
LN6 7AH

**Tel:** 0044 (0) 1522 537561  
**Fax:** 0044 (0) 1522 780278

**SOLID COMPOUND FERTILISER**

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Solid compound fertiliser (NPK, NP, NK) not based on ammonium nitrate

These products may contain some or all of the following ingredients:

Ammonium sulphate, urea, mono and di-ammonium phosphate, normal (single) Superphosphate, triple Superphosphate, rock phosphate, potassium chloride (muriate of potash), potassium sulphate, calcium nitrate, urea formaldehyde, inert fillers such as sand or limestone, and coating materials such as oil, amine, clay or talc, secondary nutrients and/or micro-nutrients.

**3. HAZARDS IDENTIFICATION**

**3.1 Human Health**

Products are of 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 air-borne material may cause  
Irritation of the nose and upper respiratory tract with symptoms such as  
sore throat and coughing.

*Molten material:* Will cause burns and inhalation of decomposition gases (e.g. in a fire) may  
cause serious delayed lung effects



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### HAZARDS IDENTIFICATION (CONT.)

#### 3.2 Environment

As this fertiliser contains phosphate, heavy spillage may cause adverse environmental impact such as eutrophication in confined surface waters. See section 12.

<b>4. FIRST AID MEASURES</b>
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*Skin contact:* Wash the affected area with soap and water

*Eye contact:* Bathe the eye with running water or eyewash for 10 minutes.

*Ingestion:* Do not induce vomiting. Give milk or water to drink.

*Inhalation:* Move into fresh air.

Obtain medical advice if symptoms persist

<b>5. FIRE FIGHTING MEASURES</b>
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When the fertiliser is not directly involved in the fire use the best means available to control the fire.

When the fertiliser is involved:-

- a. Avoid breathing the fumes. Wherever possible wear an approved breathing mask when fighting a fire or when fumes are being emitted.
- b. Call the fire brigade
- c. Use plenty of water
- d. Open doors and windows to give maximum ventilation
- e. Do not allow molten product to run into drains.

<b>6. ACCIDENTAL RELEASE MEASURES</b>
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Sweep up into suitable labelled container and wash affected areas with water.



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### 7. HANDLING, STORAGE AND USE

*Handling:* Avoid excessive generation of dust. Avoid unnecessary exposure to the Atmosphere to prevent moisture pick-up

*Storage :* The basic requirements are to avoid contamination and fire. Keep away from sources of heat, fire and explosion, and away from all combustible materials and chemical substances. **Do not permit smoking** or the use of naked lights in the storage area. Store in a cool, dry, well-ventilated place away from children and pets.  
Further storage guidance is given in HSE Guidance IND (G) 230L

*Use:* Use only as a home garden fertiliser as directed on the pack

### 8. EXPOSURE CONTROL/PERSONAL PROTECTION

#### 8.1 Occupational Exposure Limits

No specific official limits.

ACGIH recommended value (1995-1996) for inhalable particulate: TLV/TWA 10mg/m<sup>3</sup>

#### 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 approved dust Respirators if airborne concentrations are high. Wash hands after handling the product and observe good hygiene practices.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White, grey or brown prills unless deliberately coloured during manufacture

Odour: Odourless

pH water solution: Usually >4.5  
(100g/l)

Bulk density: Normally between 900-1100kg/m<sup>3</sup>

Solubility in water: Variable solubility, extent depends on composition  
Most formulations are hygroscopic

### 10. STABILITY AND REACTIVITY

Stable under normal storage and handling conditions. Liberates ammonia when in contact with alkalis e.g. Caustic Soda.

Do not weld or apply heat to equipment that may have contained the fertiliser without first washing thoroughly to remove all fertiliser.



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### 11. TOXICOLOGICAL INFORMATION

#### 11.1 General

See section 3.1

#### 11.2 Toxicity Data

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)	>2000mg/kg

### 12. ECOLOGICAL INFORMATION

#### 12.1 Mobility

Nutrients soluble in water. The ammonium ion is adsorbed by soil.

#### 12.2 Persistence/Degradability

The ammonium ion is adsorbed by soil particles. Phosphates, whether water or citrate soluble, are translocated 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.

#### 12.3 Bio-accumulation

The product does not show any bio-accumulation phenomena

#### 12.4 Ecotoxicity

Low toxicity to aquatic life

### 13. DISPOSAL CONSIDERATIONS

Depending on the degree of contamination, dispose of by use on farm/garden by spreading thinly on open ground or to an authorised waste facility. Take care to avoid the contamination of watercourses and drains. Inform the appropriate water authority in the event of accidental watercourse contamination.

### 14. TRANSPORT INFORMATION

#### 14.1 UN classification

Classified as non-hazardous



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15. REGULATORY INFORMATION
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15.1 EU Directives

76/116/EEC (Relating to fertilisers)

15.2 National Regulations

The Fertilisers Regulations (1991) and subsequent amendments

16. OTHER INFORMATION

This safety data sheet provides health and safety information. The product is to be used in a way consistent with best horticultural 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 our knowledge correct at the date of publication. William Sinclair Horticulture disclaims any liability for any loss or damage resulting from reliance on this information.

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