

J. Arthur Bower's Growmore

J. Arthur Bower's Growmore is a multi-purpose plant food with an even balance of nutrients to feed all the plants in your garden. A single application forked well into the soil will last up to 2 months. Alternatively, Growmore can be applied to the soil surface once a month to keep your plants well fed throughout the growing season.

General Plant Feeding

Scatter 70g per sq m (2oz per sq yd) onto the soil.
Lightly fork or hoe in.
Repeat once a month through the growing season.

Planting up and Care of Patio Containers

Mix 35g (1oz) with 2 or 3 handfuls of compost or soil.
Distribute this evenly around the bottom and sides of the hole.
Fill the middle with compost and plants.
After 2 months feed by scattering a handful round the plants and lightly fork in.

Preparing Beds, Borders and Vegetable Plots

Scatter 140g per sq m (4oz per sq yd) onto the soil 7 – 10 days before planting or sowing.
Fork well in.
For salad crops use half the quantity.

Application Advice

Use the recommended amount.
Apply evenly between the plants, without touching the plant itself.
Avoid using on windy days.
Water well in after applying.
Wash hands after use.

Storage

Store in a cool, dry place away from children, pets and foodstuffs.

William Sinclair Horticulture

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

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Lincolnshire

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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

Date of Issue: 18/01/08 Version 1.3 Page 1 of 5 William Sinclair Horticulture

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.

4. FIRST AID MEASURES

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

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:-

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.

6. ACCIDENTAL RELEASE MEASURES

Sweep up into suitable labelled container and wash affected areas with water.

Date of Issue: 18/01/08 Version 1.3 Page 2 of 5 William Sinclair Horticulture

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/m³

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/m³

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.

Date of Issue: 18/01/08 Version 1.3 Page 3 of 5 William Sinclair Horticulture

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

Date of Issue: 18/01/08 Version 1.3 Page 4 of 5 William Sinclair Horticulture

15. REGULATORY INFORMATION

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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Date of Issue: 18/01/08 Version 1.3 Page 5 of 5

Conforms to 76/116/EC