SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name	Aliette® WG Systemic Fungicide
Other names	none
Product code (UVP)	05921589
Chemical Group	phosphonate
Recommended use	Fungicide
Chemical Formulation	Water dispersible granules (WG)
Company	Bayer Cropscience Pty Ltd –ABN 87 000 226 022 391-393 Tooronga Road, East Hawthorn Victoria 3123, Australia
Telephone	(03) 9248 6888
Technical Information Service	1800 804 479
Facsimile	(03) 9248 6800
Website	www.bayercropscience.com.au
Emergency telephone no.	1800 033 111 Orica SH&E Shared Services

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

HAZARDOUS SUBSTANCE NON-DANGEROUS GOODS

Hazardous classification	Hazardous (National Occupational Health and Safety Commission - NOHSC)
R-phrase(s)	R36 - Irritating to eyes.
S-phrase(s)	See sections 4, 5, 6, 7, 8, 10, 12, 13.
ADG Classification	Not “dangerous goods” for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. - See Section 14.
SUSMP classification (Poison Schedule)	Exempt (Standard for the Uniform Scheduling of Medicines and Poisons)

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature
Fosetyl aluminium 800g/kg

Chemical Name	CAS-No.	Concentration [%]
Fosetyl Aluminium	39148-24-8	80.00
Synthetic amorphous silica	112926-00-8	>= 1.00 - <= 5.00
Other ingredients (non-hazardous) to 100%		

SECTION 4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13

11 26), and follow the advice given. Show this Safety Data Sheet to the doctor.

General advice
Move out of dangerous area. When symptoms develop and persist, seek medical advice.

Inhalation
Move the victim to fresh air and keep at rest. If symptoms persist, call a physician. In case of respiratory arrest induce breathing with a respiratory device. Seek medical advice.

Skin contact
Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes.

Eye contact
Wash off immediately with plenty of water for at least 15 minutes. Eye treatment by an ophthalmologist.

Ingestion
Rinse mouth. Do NOT induce vomiting. Keep patient warm and at rest. Call a physician or poison control center immediately.

Notes to physician

Symptoms
The following symptoms may occur:, The product causes irritation of eyes, skin and mucous membranes.

Treatment
Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate.
There is no specific antidote.
Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media which shall not be used for safety reasons
High volume water jet

Hazards from combustion products
Carbon monoxide (CO)
Nitrogen oxides (NOx)
Oxides of phosphorus
Phosgene

Precautions for fire-fighting
Wear self-contained breathing apparatus and protective suit.
Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.
Whenever possible, contain fire-fighting water by diking area with sand or earth.
Do not allow run-off from fire fighting to enter drains or water courses.

Hazchem Code not applicable

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Avoid contact with spilled product or contaminated surfaces.
When dealing with a spillage do not eat, drink or smoke.

Environmental precautions

Do not allow to get into surface water, drains and ground water.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.
Clean contaminated floors and objects thoroughly, observing environmental regulations.

Reference to other sections

Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7. HANDLING AND STORAGE

Handling

Hygiene measures

Remove soiled clothing immediately and clean thoroughly before using again.
Wash hands immediately after work, if necessary take a shower.
Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion

Care should be taken to avoid formation of dust from abraded granules.
Dust may form explosive mixture in air.

Storage

Requirements for storage areas and containers

Keep out of the reach of children.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep away from direct sunlight.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
Synthetic amorphous silica (Inspirable fraction.)	112926-00-8	10 mg/m3 (TWA)	08 2005	AU OEL
Aluminium (Dust.)	7429-90-5	10 mg/m3 (TWA)	08 2005	AU OEL
Aluminium (Welding fume.)	7429-90-5	5 mg/m3 (TWA)	08 2005	AU OEL
Aluminium (Pyrophoric powder.)	7429-90-5	5 mg/m3 (TWA)	08 2005	AU OEL

For further details on the Occupational Exposure Standards, see Section 16.

Personal protective equipment - End user

General advice	Eye wash facility and safety shower should be available.
Respiratory protection	AS/NZS 1715/1716 approved respirator

Hand protection	Elbow-length PVC or nitrile gloves
Eye protection	Face-shield or goggles
Skin and body protection	Cotton overall buttoned to the neck and wrist

Engineering Controls

Advice on safe handling
Use only in area provided with appropriate exhaust ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	water-dispersible granules
Colour	brown
Odour	no data available

Safety data

pH	3 - 4.5 at 1 % (23 °C)
Flash point	not applicable
Flammability (solid, gas)	The product is not highly flammable.
Ignition temperature	no data available
Upper explosion limit	no data available
Lower explosion limit	no data available
Vapour pressure	< 0.0001 mPa at 25 °C The value mentioned relates to the active ingredient.
Relative vapour density	no data available
Density	no data available
Bulk density	0.62 - 0.66 g/cm³ (loose)
Water solubility	dispersible
Partition coefficient: n-octanol/water	log Pow: -2.1 The value mentioned relates to the active ingredient fosetyl aluminium.
Surface tension	28 mN/m at 20 °C
Oxidizing properties	No oxidizing properties
Explosivity	Not explosive
Other information	Further safety related physical-chemical data are not known.

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to avoid	Extremes of temperature and direct sunlight.
Conditions to avoid	Exposure to moisture. Extremes of temperature and direct sunlight.
Self heating	not self-heating
Materials to avoid	Store only in the original container.
Hazardous Decomposition Products	Thermal decomposition can lead to release of: Oxides of carbon Nitrogen oxides (NOx) Oxides of phosphorus Phosphine gas
Hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Inhalation	Low acute inhalation toxicity. Dusts may cause upper respiratory tract irritation, coughing.
Skin	May cause skin irritation.
Eye	Causes eye irritation.
Ingestion	Low acute oral toxicity. Ingestion of large amounts may be harmful (see Signs and Symptoms).
Acute oral toxicity	LD50 (rat) > 2,000 mg/kg
Acute inhalation toxicity	LC50 (rat) > 5.02 mg/l Exposure time: 4 h Determined in the form of dust.
Acute dermal toxicity	LD50 (rat) > 2,000 mg/kg
Skin irritation	Slight irritant effect - does not require labelling. (rabbit)
Eye irritation	Irritating to eyes. (rabbit)
Sensitisation	Non-sensitizing. (guinea pig) OECD Test Guideline 406, Buehler test
Chronic toxicity	Fosetyl Aluminium did not cause specific target organ toxicity in experimental animal studies.
Assessment Mutagenicity	

Fosetyl Aluminium was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment Carcinogenicity
Fosetyl Aluminium was not carcinogenic in lifetime feeding studies in rats and mice.

Assessment Toxicity to Reproduction
Fosetyl Aluminium did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity
Fosetyl Aluminium did not cause developmental toxicity in rats and rabbits.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish	LC50 (Rainbow trout (Oncorhynchus mykiss)) > 120 mg/l Exposure time: 96 h
Toxicity to aquatic invertebrates	EC50 (Water flea (Daphnia magna)) 37 mg/l Exposure time: 48 h
Toxicity to aquatic plants	EC50 (Scenedesmus subspicatus) 27.7 mg/l Growth rate Exposure time: 72 h

Additional ecological information
No other effects to be mentioned.

Biodegradability	Readily biodegradable.
Stability in soil	0.3 - 1.5 h. aerobic The value mentioned relates to the active ingredient fosetyl aluminium.
Bioaccumulation	Not applicable for this mixture.
Additional Environmental Information	no data available

SECTION 13. DISPOSAL CONSIDERATIONS

Paper bags:
Shake bag contents into spray tank until the bag is empty. Do not dispose of undiluted chemicals on site. Puncture or shred and bury empty bags in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty bags and product should not be burnt.

SECTION 14. TRANSPORT INFORMATION

According to national and international transport regulations not classified as dangerous goods.

SECTION 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994

Australian Pesticides and Veterinary Medicines Authority approval number: 46798

See also Section 2.

SECTION 16. OTHER INFORMATION

Trademark information Aliette® is a registered trademark of the Bayer Group.

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

Further details on the Occupational Exposure Standards mentioned in Section 8:
CEILING: Ceiling Limit Value
OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"
Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)
PEAK: Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.
STEL: Exposure standard - short term exposure limit (STEL): A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.
SKIN_DES: Skin notation: Absorption through the skin may be a significant source of exposure.
TWA: Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

END OF SDS