



# Aliette®

## WG

Reg. No. 98-B-44-3

CONTENTS: 6 kg



# CAUTION

## HARMFUL IF SWALLOWED

**COMPOSITION:**

fosetyl-Al .....	800 g/kg
inert ingredients .....	200 g/kg

**MASS/MASS**

Chemical Group: Alkyl-Phosphonate

**A FULLY SYSTEMIC FUNGICIDE FOR CONTROL OF  
PHYTOPHTHORA ROOT ROT IN AVOCADOS AND  
CITRUS AND COLLAR ROT  
IN CITRUS**

ZIM/0714/Aliette 6kg/Label & Booklet Code: 81



**CAUTION  
VERSIGTIG**



### **IMPORTANT:**

**Aliette WG** is a fully systemic fungicide which is translocated both upwards and downwards in the plant. It is for this reason that **Aliette WG** can be applied as a foliar spray to control *Phytophthora* root and collar rot. **Aliette WG** is absorbed efficiently through young leaves so application to plant lacking a new flush may therefore be less effective.

**RAINFAST:** Allow a minimum of 4 hours between application and rainfall.

### **DIRECTIONS FOR USE:**

*PHYTOPHTHORA* ROOT ROT: AVOCADOS AND CITRUS

**DOSAGE:** AVOCADOS: Dilute 375 grams of **Aliette WG** per 100 litres of water  
CITRUS : Dilute 250 grams of **Aliette WG** per 100 litres of water

### **METHOD:**

#### **Mature Trees**

Apply as a light cover spray to the leaves. Trees to be treated must show a flush of new growth in order to ensure effective absorption of the chemical. Severely diseased trees should be cut back to ensure new leaves are present when treatment commences.

### **CORRECTIVE TREATMENT:**

To be used when tree show symptoms of root rot (leaves wilting, yellowing and dropping off).

Start application when the spring flush is fully developed, spraying throughout the summer months until April

Avocados: spray every four weeks.

Citrus: spray every six weeks.

To ensure full recovery of the trees, follow this programme for two consecutive seasons then switch to maintenance treatments.

### **MAINTENANCE AND PREVENTATIVE TREATMENTS:**

To be used when soil is known to be infected but before the disease symptoms appear OR when the trees have been treated correctly.

Start application when the spring flush is fully developed, spraying throughout the summer months until April

Avocados: spray every six weeks.

Citrus: spray every flush (normally three flushes per season)

### **NURSERY TREES:**

Apply as a preventative foliar and/or soil treatment in addition to the precautions normally recommended for citrus and avocado nurseries.

Foliar treatment: Apply as a foliar spray ensuring thorough coverage of all the leaves of the young plant.

Root treatments: Apply sufficient **Aliette WG** mixture to ensure that the total root-containing soil volume is drenched.

Repeat every six weeks.

It is also recommended that the roots of young trees be dipped in the **Aliette WG** mixture prior to transplanting and that the preventative programme be followed on young trees planted in soil suspected to be infected.

### **CITRUS COLLAR ROT:**

**DOSAGE:** Mix 500 grams of **Aliette WG** with one litre of water.

### **METHOD:**

Paint the stem completely for 200 mm above the area of infection to either 200 mm below or to soil level. Repaint every four to six months until the lesion has completely callused over.

**PRE HARVEST INTERVAL:** 0 days

### **MIXING INSTRUCTIONS:**

Mix the required quantity of **Aliette WG** in a small volume of water and then add this suspension to the bulk of the water in the spray tank. Ensure that mixing is complete and agitate the mixture thoroughly before and during application.

ENSURE THAT CLEAN WATER IS USED AT ALL TIMES.

### **COMPATIBILITY:**

1. **Aliette WG** is compatible with most pesticides and fungicides used in the crops where it is registered. However, it must not be mixed with copper-containing fungicides, nitrogen-containing foliar feeds or pesticide formulation containing dicofol or endosulfan.
2. **Aliette WG** can be used in tank mixtures with mancozeb **only** if constant agitation is maintained in the spray tank.
3. For any other stem treatments: To avoid phytotoxicity, allow a time interval of at least 2 weeks after **Aliette WG** treatments e.g. methamidophos treatments.

## **TO CAUSE A HAZARD IN THE USE, STORAGE OR DISPOSAL OF THIS SUBSTANCE IS AN OFFENCE.**

**SAFETY INSTRUCTIONS READ THIS LABEL CAREFULLY BEFORE USING THE PRODUCT AND FOLLOW INSTRUCTIONS**

### **PRECAUTIONS:**

1. KEEP LOCKED UP AND OUT OF THE REACH OF CHILDREN
2. STORE IN ORIGINAL CONTAINER
3. KEEP APART FROM FOOD AND FOODSTUFFS
4. HANDLE WITH CARE, AVOID SPLASHING AND SKIN AND EYE CONTACT. POISONOUS BY SWALLOWING, INHALATION AND CONTACT WITH THE SKIN
5. DO NOT EAT, DRINK OR SMOKE WHILE USING PRODUCT
6. Re-entry - Do not enter treated area until spray deposit has dried unless wearing protective clothing.

### **AFTER USE:**

WASH hands and exposed skin before eating, drinking or smoking. CHANGE clothes and wash all protective clothing, particularly the inside part of gloves.

### **WASTE AND CONTAINER DISPOSAL:**

**DO NOT** contaminate water by cleaning of equipment or disposal of wastes. Completely empty containers. Never re-use empty container. Destroy containers by burying or burning.

### **IN CASE OF SPILLAGE:**

Avoid contamination of any water supply.

Cover with sand or earth, carefully sweep up and place in a closed receptacle before burying.

### **ECOTOXICITY:**

**Aliette WG** is without danger for the user, domestic animals, birds, fish and wildlife.

**Aliette WG** is of low toxicity to bees.

### **SYMPTOMS OF POISONING:**

No cases of human intoxication known. May cause eye and mucous membrane irritation. May cause skin and eye irritation. If after ingestion of large quantities of product, possibility of aluminium poisoning may occur.

### **FIRST AID: IN CASE OF:**

**Contact with eyes** : flush with a steady, gentle stream of water for at least 20 minutes.

**Contact with skin** : remove all contaminated clothing and wash exposed skin thoroughly with soap and water.

**Swallowing** : do not induce vomiting if victim is unconscious or convulsing. If patient is conscious wash out mouth. Keep patient warm, comfortable, at rest, get medical help.

### **NOTE TO PHYSICIAN:**

No specific antidote known. Call nearest poison centre

### **WARRANTY:**

Provided that the recommendations for usage of this product are strictly followed it should give excellent results, but since the performance of crop protection chemicals and pesticides can be influenced by factors outside the manufacturer's control; the manufacturer and seller give no guarantee or warranty, either express or implied, concerning the use and/or storage of this product, and accept no responsibility or liability of any nature whatsoever for any damage, injury or financial loss of any nature from the use thereof.

Date of Manufacture: See on pack

Batch No.: See on pack

Packed For:

Bayer Zimbabwe (Pvt) Ltd

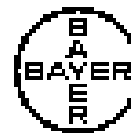
P.O. Box AY 78, Amby, Harare, Zimbabwe.

Tel. 487211/487245/7 Fax. 487242

IN CASE OF POISONING PLEASE PHONE: +27 (21) 931-6129

Manufactured by Bayer CropScience SA

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**ALIETTE WG80**

Version 1 / ZA  
102000024225

1/8  
Revision Date: 04.07.2017  
Print Date: 04.07.2017

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifier**

**Trade name** ALIETTE WG80  
**Product code (UVP)** 79892411, 81013152

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

**Use** Fungicide

**1.3 Details of the supplier of the safety data sheet**

**Supplier** Bayer (Pty) Ltd.  
27 Wrench Road, P.O. Box 143  
1600 Isando  
South Africa  
**Telephone** +27 (011) 921 5911  
**Telefax** +27 (011) 921 5766  
**Responsible Department** QHSE - Nigel, South Africa  
+27 (011) 365 8675 (during business hours only)

**1.4 Emergency telephone no.**

**Emergency telephone no.** +27 (0861) 555 777 (Western Cape Poisons Helpline)  
**Global Incident Response Hotline (24h)** +1 (760) 476 3964 (Company 3E for Bayer AG, Crop Science Division)

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.**

Eye irritation: Category 2  
H319 Causes serious eye irritation.

**2.2 Label elements**

**Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.**

Hazard label for supply/use required.

**Hazardous components which must be listed on the label:**

- Fosetyl-Aluminium



**Signal word:** Warning

**Hazard statements**

H319 Causes serious eye irritation.  
EUH401 To avoid risks to human health and the environment, comply with the instructions for use.



**ALIETTE WG80**

Version 1 / ZA  
102000024225

2/8  
Revision Date: 04.07.2017  
Print Date: 04.07.2017

**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.

**2.3 Other hazards**

No other hazards known.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.2 Mixtures**

**Chemical nature**

Water dispersible granules (WG)  
Fosetyl aluminium 80%

**Hazardous components**

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Fosetyl-Aluminium	39148-24-8	Eye Dam. 1, H318	80,00
Ethoxylated-propoxylate fatty alcohol (block copolymer)	68154-97-2	Acute Tox. 4, H302 Eye Dam. 1, H318	> 1,0 – < 25,0
Lignosulfonic acid, sodium salt, sulfomethylated	68512-34-5	Eye Irrit. 2, H319	> 3,0 – < 10,0
Sodium hydroxide	1310-73-2	Skin Corr. 1A, H314	> 1,0 – < 5,0

**Further information**

For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4: FIRST AID MEASURES**

**4.1 Description of first aid measures**

**General advice** Move out of dangerous area. Remove contaminated clothing immediately and dispose of safely. When symptoms develop and persist, seek medical advice.

**Inhalation** Move to fresh air.

**Skin contact** Wash off immediately with soap and plenty of water.

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

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

**4.2 Most important symptoms and effects, both acute and delayed**

**Symptoms** Skin, eye and mucous membrane irritation



**ALIETTE WG80**

Version 1 / ZA  
102000024225

3/8  
Revision Date: 04.07.2017  
Print Date: 04.07.2017

**4.3 Indication of any immediate medical attention and special treatment needed**

**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.

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**SECTION 5: FIREFIGHTING MEASURES**

**5.1 Extinguishing media**

**Suitable** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
**Unsuitable** High volume water jet

**5.2 Special hazards arising from the substance or mixture** In the event of fire the following may be released: Carbon monoxide (CO), Nitrogen oxides (NOx), Oxides of phosphorus

**5.3 Advice for firefighters**

**Special protective equipment for firefighters** In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

**Further information** Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

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

**6.2 Environmental precautions** Do not allow to get into surface water, drains and ground water.

**6.3 Methods and materials for containment and cleaning up**

**Methods for cleaning up** Use approved industrial vacuum cleaner for removal. Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional advice** Check also for any local site procedures.

**6.4 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.

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**SECTION 7: HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

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

**Advice on protection against fire and explosion** No special precautions required.

**Hygiene measures** Remove soiled clothing immediately and clean thoroughly before using



**ALIETTE WG80**

Version 1 / ZA  
102000024225

4/8  
Revision Date: 04.07.2017  
Print Date: 04.07.2017

again. Wash hands immediately after work, if necessary take a shower. Smoking, eating and drinking should be prohibited in the application area.

**7.2 Conditions for safe storage, including any incompatibilities**

**Requirements for storage areas and containers** Store in a place accessible by authorized persons only. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.

**Advice on common storage** Keep away from food, drink and animal feedingstuffs.

**Suitable materials** Aluminium composite film (min. 0,007 mm Aluminium)

**7.3 Specific end use(s)** Refer to the label and/or leaflet.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Fosetyl-Aluminium	39148-24-8	5 mg/m3 (TWA)		OES BCS*
Sodium hydroxide	1310-73-2	2 mg/m3 (STEL)	1995	ZA REL
Sodium hydroxide	1310-73-2	2 mg/m3 (TLV)		OES BCS*
Synthetic amorphous silica (Respirable dust.)	112926-00-8	3 mg/m3 (TWA)	1995	ZA REL
Synthetic amorphous silica (Total inhalable dust.)	112926-00-8	6 mg/m3 (TWA)	1995	ZA REL

\*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

**8.2 Exposure controls**

**Respiratory protection** Wear respirator with a particle filter mask (protection factor 4) conforming to European norm EN149FFP1 or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

**Hand protection** Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.  
Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.  
Material Nitrile rubber  
Rate of permeability > 480 min  
Glove thickness > 0,4 mm  
Protective index Class 6

**ALIETTE WG80**Version 1 / ZA  
102000024225

5/8

Revision Date: 04.07.2017  
Print Date: 04.07.2017

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	Directive	Protective gloves complying with EN 374.
<b>Eye protection</b>	Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).	
<b>Skin and body protection</b>	Wear standard coveralls and Category 3 Type 5 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.	

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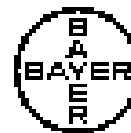
**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

<b>Form</b>	water-dispersible granules
<b>Colour</b>	brown
<b>Odour</b>	weak, characteristic
<b>pH</b>	3,0 - 4,5 at 1 % (23 °C) (CIPAC D water (342ppm))
<b>Bulk density</b>	0,620 - 0,660 g/ml (loose)
<b>Water solubility</b>	dispersible
<b>Partition coefficient: n-octanol/water</b>	Fosetyl Aluminium: log Pow: -2,1
<b>Oxidizing properties</b>	No oxidizing properties
<b>Explosivity</b>	Not explosive
<b>9.2 Other information</b>	Further safety related physical-chemical data are not known.

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**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity****Thermal decomposition** Stable under normal conditions.**10.2 Chemical stability** Stable under recommended storage conditions.**10.3 Possibility of hazardous reactions** No hazardous reactions when stored and handled according to prescribed instructions.**10.4 Conditions to avoid** Extremes of temperature and direct sunlight.**10.5 Incompatible materials** Store only in the original container.**10.6 Hazardous decomposition products** No decomposition products expected under normal conditions of use.**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute oral toxicity** LD50 (Rat) > 2.000 mg/kg**Acute dermal toxicity** LD50 (Rat) > 2.000 mg/kg



**ALIETTE WG80**Version 1 / ZA  
1020000242256/8  
Revision Date: 04.07.2017  
Print Date: 04.07.2017

<b>Skin irritation</b>	Slight irritant effect - does not require labelling. (Rabbit)
<b>Eye irritation</b>	Irritating to eyes. (Rabbit)
<b>Sensitisation</b>	Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Buehler test

**Assessment STOT Specific target organ toxicity – single exposure**

Fosetyl Aluminium: Based on available data, the classification criteria are not met.

**Assessment STOT Specific target organ toxicity – repeated exposure**

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.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity**

<b>Toxicity to fish</b>	LC50 (Oncorhynchus mykiss (rainbow trout)) > 120 mg/l Exposure time: 96 h
<b>Toxicity to aquatic invertebrates</b>	EC50 (Daphnia magna (Water flea)) 37 mg/l Exposure time: 48 h
<b>Toxicity to aquatic plants</b>	EC50 (Desmodesmus subspicatus (green algae)) 27,7 mg/l Growth rate; Exposure time: 72 h

**12.2 Persistence and degradability**

<b>Biodegradability</b>	Fosetyl Aluminium: rapidly biodegradable
<b>Koc</b>	Fosetyl Aluminium: Koc: 0,1

**12.3 Bioaccumulative potential**

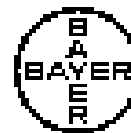
<b>Bioaccumulation</b>	Fosetyl Aluminium: Does not bioaccumulate.
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**12.4 Mobility in soil**

<b>Mobility in soil</b>	Fosetyl Aluminium: Highly mobile in soils
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**12.5 Results of PBT and vPvB assessment**

<b>PBT and vPvB assessment</b>	Fosetyl Aluminium: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be
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**ALIETTE WG80**

Version 1 / ZA  
102000024225

7/8  
Revision Date: 04.07.2017  
Print Date: 04.07.2017

very persistent and very bioaccumulative (vPvB).

**12.6 Other adverse effects**

**Additional ecological information** No other effects to be mentioned.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

**Product** In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

**Contaminated packaging** Not completely emptied packagings should be disposed of as hazardous waste.

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**SECTION 14: TRANSPORT INFORMATION**

According to SANS 10231/IMDG/IATA not classified as dangerous goods.

14.1 – 14.5 Not applicable.

**14.6 Special precautions for user**

See sections 6 to 8 of this Safety Data Sheet.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**

No transport in bulk according to the IBC Code.

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**SECTION 15: REGULATORY INFORMATION**

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

**Further information**

WHO-classification: III (Slightly hazardous)

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**SECTION 16: OTHER INFORMATION**

**Text of the hazard statements mentioned in Section 3**

H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.

**Abbreviations and acronyms**

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE Acute toxicity estimate  
CAS-Nr. Chemical Abstracts Service number  
Conc. Concentration  
EC-No. European community number  
ECx Effective concentration to x %

**ALIETTE WG80**Version 1 / ZA  
1020000242258/8  
Revision Date: 04.07.2017  
Print Date: 04.07.2017

EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

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