



Fubol Gold WG®

syngenta®

GROUP 4 | M03 FUNGICIDE

Product reg. no: MAPP 14605 **UFI:** 3GN3-F059-S002-JJ6W

Water dispersible granule containing 3.88% w/w metalaxyl-M and 64% w/w mancozeb.

Controls foliar blight of potatoes and downy mildew (*Peronospora destructor*) in bulb onion and shallots.

SAFETY PRECAUTIONS

(a) Operator protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate. WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection.

WASH CONCENTRATE from skin or eyes immediately. WASH HANDS AND EXPOSED SKIN before meals and after work.

(b) Environmental protection

To protect aquatic organisms, respect an unsprayed buffer zone distance to surface water bodies in line with LERAP requirements.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing waterbody, unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1 m of the top of a ditch which is dry at

the time of application.

DO NOT ALLOW DIRECT SPRAY from hand held sprayers to fall within 1 m of the top of the bank of a static or flowing waterbody. Aim spray away from water.

This product qualifies for inclusion within the Local Environmental Risk Assessment for Pesticides (LERAP) Scheme. Before each spraying operation from a horizontal boom sprayer or broadcast air assisted sprayer either a LERAP must be carried out in accordance with CRD published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for inspection for three years. Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

F

(c) Consumer protection

DO NOT HARVEST POTATO CROPS FOR HUMAN OR ANIMAL CONSUMPTION FOR AT LEAST 7 DAYS AFTER LAST APPLICATION.

(d) Storage and disposal

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place. EMPTY CONTAINER COMPLETELY and dispose of safely. DO NOT RE-USE CONTAINER for any other purpose.

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

Syngenta UK Limited
CPC 4, Capital Park, Fulbourn, Cambridge CB21 5XE
Tel: Cambridge (01223) 883400

**In case of toxic or transport emergency ring
+44 (0) 1484 538444 any time**

**SHAKE WELL BEFORE USE
PROTECT FROM FROST**

This product label is compliant with the CPA Voluntary Initiative (VI) guidance.



**The
Voluntary
Initiative**

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L1094922 GBRI/10A PPE 4171683

5 ha pack size

9.5 kg

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FUBOL® Gold WG

Water dispersible granule containing 3.88% w/w metalaxyl-M and 64% w/w mancozeb.

**Warning**

May cause an allergic skin reaction.

Harmful if inhaled.

Suspected of causing cancer.

Suspected of damaging the unborn child.

May cause damage to organs (Thyroid, Nervous system) through prolonged or repeated exposure.

Very toxic to aquatic life with long lasting effects.

Keep out of reach of children.

Obtain special instructions before use.

Use only outdoors or in a well-ventilated area.

Do not breathe dust.

Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Do not eat, drink or smoke when using this product.

IF exposed or concerned: Get medical advice/ attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/ attention.

Collect spillage.

Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-hazardous waste.

To avoid risks to human health and the environment comply with the instructions for use.

Product reg. no: MAPP 14605 **UFI:** 3GN3-F059-S002-JJ6W

IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL FUNGICIDE.

Crops	Maximum individual dose	Maximum number of treatments	Latest time of application
Potato	kg product/ha 1.9	per crop 3	days before harvest 7
Bulb onion and shallots	kg product/ha 1.9	per crop 3	days before harvest 28

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.

IMPORTANT: Note that goods treated under the terms of this Great Britain authorisation can only be legally marketed in Northern Ireland if they are in accordance with the statutory EU Maximum Residue Level (MRL) set under Regulation (EC) No 396/2005. This may also apply to residues in animal products where treated crops are fed to livestock. Growers are advised to draw this to the attention of distributors and retailers so that EU MRL breaches and any associated enforcement against goods marketed in Northern Ireland are avoided.

This leaflet is part of the approved Product Label.

DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be carefully read in order to obtain safe and successful use of this product.

FUBOL® GOLD WG is a water dispersible granule containing 3.88% w/w metalaxyl-M and 64% w/w mancozeb for control of foliar blight of potatoes and the useful control of downy mildew (*Peronospora destructor*) in bulb onion and shallots .

RESTRICTIONS

FUBOL GOLD WG should not be used on potato crops which follow a potato crop that has been grown in the same field in that season.

DISEASES CONTROLLED

FUBOL GOLD WG is a fungicide with systemic and protectant properties which controls when used as directed:

Foliar blight of potatoes.

Downy mildew (*Peronospora destructor*) in bulb onions and shallot : useful control

CROP SPECIFIC INFORMATION

POTATOES

Timing

The systemic component of FUBOL GOLD WG (metalaxyl-M) works best on young actively growing foliage. It is recommended, therefore, that FUBOL GOLD WG is used for the first part of the blight control programme.

FUBOL GOLD WG should not be applied when blight is already established in the crop i.e. do not use curatively

Latest time of application: Before the end of active growth of the potato haulm or before the end of August, whichever is the earlier (provided the statutory conditions of use are met).

Spraying with FUBOL GOLD WG should begin either:

1. Immediately risk of blight occurs in the area irrespective of the crop growth stage.

OR

2. In the absence of blight risk, spraying should begin as crops meet along (not across) the rows, generally when plants are 15-20 cm high.

Further sprays of FUBOL GOLD WG should be made according to blight risk.

Potatoes are at risk of infection with potato blight where warm (temperature around 8-10 °C or above) humid (rain, fog, mists or irrigation) weather conditions exist for at least two consecutive days or nights. However, any period of warmth and humidity will increase the blight risk.

After treatment of first and second early crops, haulm remaining after harvest must be completely destroyed or removed immediately to minimise blight pressure on neighbouring maincrop potatoes.

Spray Intervals

Growers should monitor the weather conditions in the immediate vicinity of their potato crops to determine blight risk. Official notification of blight risk may be inadequate to ensure optimum blight protection.

A maximum spray interval of 14 days should be used.

Low risk - Spray every 14 days

Low risk conditions occur before blight risk occurs or after the spray programme has commenced, or when weather conditions become unfavourable for blight i.e. hot, dry weather.

High risk - Spray every 10 days

High risk conditions occur if weather is conducive to blight, the crop is irrigated, or if active blight is present on crops in the area or on dumps or volunteers. The risk is especially high when high risk conditions coincide with periods of unusually rapid growth.

Severe risk - Spray every 7 days

Severe risk conditions occur where weather continues conducive to blight and all of the High risk factors occur.

Monitoring of Spray Programme

Sprayed crops should be monitored throughout the complete period of the protection programme. If blight is identified in crops sprayed with FUBOL GOLD WG stop using FUBOL GOLD WG. Switch to a curative fungicide containing an active substance with a different mode of action which should be sprayed within 7 days of the last FUBOL GOLD WG spray. Do not in any circumstances return to a FUBOL GOLD WG programme. For desiccation of the infected crop, consider use of a non-selective herbicide which is approved for this use.

Subsequent Treatments

Where crops are to be harvested before natural senescence, follow up treatments after FUBOL GOLD WG should be made using a protectant fungicide and starting no later than 10 days after the last FUBOL GOLD WG application. At least 2 protectant sprays should be applied to the crop before harvesting, desiccation or haulm destruction. N.B. Products containing phenylamide fungicides (e.g. Epok or Galben M) must not be used after FUBOL GOLD WG.

Rates of Use

Apply at 1.9 Kg/ha.

No more than 3 applications of FUBOL GOLD WG should be made to any one crop.

BULB ONIONS AND SHALLOTS

Timing

Before applying FUBOL GOLD WG, ensure the crop is free from any stress caused by environmental or agronomic effects. For optimum disease control FUBOL GOLD WG should be used at the first sign of disease infection or preferably preventatively when a predictive assessment shows conditions favourable for disease development.

Rates of Use

FUBOL GOLD WG should be applied at 1.9 Kg/ha.

- For optimum downy mildew control in onions a 7 to 10 day spray interval should be maintained
- Applications to established downy mildew infection are unlikely to give reliable control

No more than 3 applications of FUBOL GOLD WG should be made to any one crop.

STORAGE AND PROCESSING

The effects of FUBOL GOLD WG on onion and shallot bulbs has not been fully assessed. Effects on bulb quality that may affect storage characteristics cannot be ruled out.

Where a crop is destined for processing, consult your processor before treating with FUBOL GOLD WG.

RESISTANCE MANAGEMENT

Strains of the potato blight fungus resistant to phenylamide fungicides (metalaxyl, metalaxyl-M and benalaxyl) occur.

FRAC (Fungicides Resistance Action Committee) have defined guidelines for the effective management of blight and downy mildews with these fungicides, which are incorporated in this label.

No more than three applications of phenylamide-containing products should be applied to a crop of potatoes, bulb onions or shallot.

When levels of phenylamide resistance in blight are high, additional restrictions on the use of phenylamide fungicides may be necessary. Growers should always ensure that they follow the latest resistant management advice.

Since the occurrence of resistance cannot be forecast, neither Syngenta UK Limited nor its distributors can accept responsibility for any loss or damage to crops caused by the failure of FUBOL GOLD WG to control resistant strains.

MIXING AND SPRAYING

Mixing

Make sure the sprayer is set to give an even application at the correct volume. In all cases add FUBOL GOLD WG to the spray tank first, followed by any additional products.

Dry Mixing - Sprayers with Induction Hoppers

Fill sprayer to 15% of tank capacity with water and start agitation. Pour FUBOL GOLD WG into the induction hopper and open valve in bottom of hopper to suck the granules into the circulating spray mix. Continue adding FUBOL GOLD WG until loading is complete. Wash down any granules on the hopper wall and close valve. Rinse packs in the normal manner.

Sprayers Without Induction Hoppers

Fill sprayer with a minimum of 15 cm of water in the bottom and agitate vigorously. Pour FUBOL GOLD WG through the sprayer lid, triple rinse containers into the sprayer and then add the remainder of water.

Agitate the mixture thoroughly before use and continue agitation during spraying.

Thoroughly wash all spray equipment with water after use

Spray Volume

Apply in 200 litres of water per hectare

Spraying

A MEDIUM quality spray should be used (as defined by BCPC) when FUBOL GOLD WG is to be applied alone and when used in mixture with other products.

Sprays should be applied at a pressure of 2-3 bar

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Section 6 of the Health and Safety at Work Act **Additional Product Safety Information**

(This section does not form part of the product label under the Plant Protection Products Regulations 1995.)

The product label provides information on a specific pesticidal use of the product; do not use otherwise, unless you have assessed any potential hazard involved, the safety measures required and that the particular use has 'off-label' approval or is otherwise permitted under the Plant Protection Products Regulations.

The information on this label is based on the best available information including data from test results.

Safety Data Sheet - v18.0

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name: FUBOL GOLD WG

Design code: A9651D

Product Registration Number: MAPP14605

Unique Formula Identifier (UFI): 3GN3-F059-S002-JJ6W

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

Use of the Substance/Mixture: Fungicide

Recommended restrictions on use: professional use

1.3 Details of the supplier of the safety data sheet Company

Company Syngenta UK Limited, CPC4, Capital Park, Fulbourn, Cambridge, CB21 5XE, United Kingdom

Telephone: +44 (0) 1223 883400

Telefax: +44 (0) 1223 882195

E-mail address of person responsible for the SDS: customer.services@syngenta.com

1.4 Emergency telephone number

Emergency telephone number: +44 (0) 1484 538444

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Acute toxicity, Category 4 - H332: Harmful if inhaled.

Skin sensitisation, Category 1 - H317: May cause an allergic skin reaction.

Carcinogenicity, Category 2 - H351: Suspected of causing cancer.

Reproductive toxicity, Category 2 - H361d: Suspected of damaging the unborn child.


Specific target organ toxicity - repeated exposure, Category 2, Thyroid, Nervous system - H373: May cause damage to organs through prolonged or repeated exposure.

Short-term (acute) aquatic hazard, Category 1 - H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, Category 1 - H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms		
		
Signal Word	Warning	
Hazard Statements	H317 H332 H351 H361d H373	May cause an allergic skin reaction. Harmful if inhaled. Suspected of causing cancer. Suspected of damaging the unborn child May cause damage to organs (Thyroid, Nervous system) through prolonged or repeated exposure.
Precautionary Statements	H410 P102 P201 P260 P270 P271 P280 P302+P352 P308+P313 P304+P340+P312 P333+P313 P391 P501	Very toxic to aquatic life with long lasting effects Keep out of reach of children. Obtain special instructions before use. Do not breathe dust. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF ON SKIN: Wash with plenty of soap and water. If exposed or concerned: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice/ attention. Collect spillage. Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty clean containers which can be disposed of as non-hazardous waste.

Hazardous components which must be listed on the label:

- mancozeb (ISO)

Additional Labelling

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

May form combustible dust concentrations in air.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Components

Chemical Name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
mancozeb (ISO)	8018-01-7 006-076-00-1 01-2120878369-34	Skin Sens. 1; H317 Carc. 2; H351 Repr. 1B; H360D STOT RE 2; H373 (Nervous system, Thyroid) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	>= 50 - < 70
metalaxyl-M (ISO)	70630-17-0 612-163-00-0	Acute Tox.4; H302 Eye Dam.1; H318	>= 3 - < 10

For explanation of abbreviations see section 16.

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.

If inhaled: Move the victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or poison control centre immediately.

In case of skin contact: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

If swallowed: If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Nonspecific. No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

Medical advice: There is no specific antidote available. Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Extinguishing media - small fires

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

Extinguishing media - large fires

Use alcohol-resistant foam or water spray.

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

5.2 Specific hazards arising from the substance or mixture

Specific hazards during firefighting: Fire will spread by smouldering or slow decomposition.

As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health.

5.3 Advice for firefighters

Special protective equipment for firefighters: Wear full protective clothing and self-contained breathing apparatus. Further information: Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Refer to protective measures listed in sections 7 and 8. Avoid dust formation.

6.2 Environmental precautions

Environmental precautions: Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

Do not create a powder cloud by using a brush or compressed air. Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents. Retain and dispose of contaminated wash water.

6.4 Reference to other sections

For disposal considerations see section 13., Refer to protective measures listed in sections 7 and 8.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling: This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.

This material can become readily charged in most operations.

This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents. This material can become readily charged in most operations. Avoid contact with skin and eyes. When using do not eat, drink or smoke. For personal protection see section 8.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: No special storage conditions required. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.

Recommended storage temperature: < 35 °C

Further information on storage stability: Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

7.3 Specific end use(s)

Specific use(s): For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
mancozeb (ISO)	8018-01-7	TWA	1 mg/m ³	Supplier
metalaxyl-M (ISO)	70630-17-0	TWA	5 mg/m ³	Syngenta

8.2 Exposure controls

Engineering measures

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. Maintain air concentrations below occupational exposure standards. Where necessary, seek additional occupational hygiene advice.

Personal protective equipment

Eye protection: No special protective equipment required.

Hand protection

Material: Nitrile rubber

Break through time: > 480 min

Glove thickness: 0.5 mm

Remarks: Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. 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. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/

EEC and the standard EN 374 derived from it.

Skin and body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Remove and wash contaminated clothing before re-use. Wear as appropriate: Dust impervious protective suit.

Respiratory protection: No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Protective measures: The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Granules
Colour:	Light yellow to light brown
Odour:	Weak
Odour Threshold:	No data available
Melting point/range:	No data available
Boiling Point/Boiling Range:	No data available
Flammability:	May form combustible dust concentrations in air.
Lower explosion limit:	No data available
Upper explosion limit:	No data available
Flash point:	No data available
Auto-ignition temperature:	152 °C
Decomposition temperature:	No data available
pH:	6.0 - 8.0; Concentration: 1 % w/v
Viscosity, dynamic:	No data available
Viscosity, kinematic:	No data available
Water solubility:	No data available
Solubility in other solvents:	No data available
Partition coefficient:	
n-octanol/water:	No data available
Vapour pressure:	No data available
Density:	1 g/cm ³
Bulk density:	0.45 - 0.65 g/cm ³
Relative vapour density:	No data available
Particle size:	No data available

9.2 Other Information

Explosives:	Not explosive
Oxidizing properties:	The substance or mixture is not classified as oxidizing.
Flammable solids	
Burning number:	5 (100 °C); 4 (20 °C)
Self-heating substances:	The substance or mixture is not classified as self heating.
Minimum ignition temperature:	340 °C
Evaporation rate:	No data available
Miscibility with water:	Miscible
Surface tension:	57.8 mN/m, 20 °C
Minimum ignition energy:	300 - 1,000 mJ

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity:

None reasonably foreseeable.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions: No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid: No decomposition if used as directed.

10.5 Incompatible materials

Materials to avoid: None known.

10.6 Hazardous decomposition products

Hazardous decomposition products: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Information on likely routes of exposure: Ingestion, Inhalation, Skin contact, Eye contact

Acute toxicity

Product:

Acute oral toxicity: LD50 (Rat, female): > 5,000 mg/kg
Acute inhalation toxicity: LC50 (Rat, male and female): 2.02 - 5.06 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
LD50 (Rat, male and female): > 5,000 mg/kg

Acute dermal toxicity:

Components:

mancozeb (ISO):

Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity: LC50 (Rat): > 5.14 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity:

metalaxyl-M (ISO):

Acute oral toxicity: LD50 (Rat, female): 375 mg/kg
Acute inhalation toxicity: LC50 (Rat, male and female): > 2.29 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Highest attainable concentration
LD50 (Rat, male and female): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Acute dermal toxicity:

Skin corrosion/irritation

Product:

Species: Rabbit
Result: No skin irritation

Components:

mancozeb (ISO):

Species: Rabbit
Result: No skin irritation

metalaxyl-M (ISO):

Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Product:

Species: Rabbit
Result: No eye irritation

Components:

mancozeb (ISO):

Species: Rabbit
Result: No eye irritation

metalaxyl-M (ISO):

Species: Rabbit
Result: Risk of serious damage to eyes.

Respiratory or skin sensitisation

Product:

Test Type: Buehler Test
Species: Guinea pig
Result: May cause sensitisation by skin contact.

Components:

mancozeb (ISO):

Species: Guinea pig
Result: May cause sensitisation by skin contact.

metalaxyl-M (ISO):

Species: Guinea pig
Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Components:

mancozeb (ISO):

Germ cell mutagenicity- Assessment: Animal testing did not show any mutagenic effects.

metalaxyl-M (ISO):

Germ cell mutagenicity- Assessment: Animal testing did not show any mutagenic effects.

Carcinogenicity

Components:

mancozeb (ISO):

Carcinogenicity - Assessment: No evidence of carcinogenicity in animal studies.

metalaxyl-M (ISO):

Carcinogenicity - Assessment: No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Components:

mancozeb (ISO):

Reproductive toxicity - Assessment: Some evidence of adverse effects on development, based on animal experiments.

metalaxyl-M (ISO):

Reproductive toxicity - Assessment: No toxicity to reproduction

STOT - repeated exposure

Components:

metalaxyl-M (ISO):

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

Repeated dose toxicity

Components:

mancozeb (ISO):

Remarks: No adverse effect has been observed in chronic toxicity tests.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Product:

Toxicity to fish: LC50 (*Cyprinus carpio* (Carp)): 23 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (*Daphnia magna* Straus): 0.8 mg/l
Exposure time: 48 h

Toxicity to algae: ErC50 (*Raphidocelis subcapitata* (freshwater green alga)): 0.219 mg/l
Exposure time: 72 h
NOEC (*Raphidocelis subcapitata* (freshwater green alga)): 0.031 mg/l
End point: Growth rate
Exposure time: 72 h

Components:

mancozeb (ISO):

Toxicity to fish: LC50 (*Oncorhynchus mykiss* (rainbow trout)): 0.088 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (*Daphnia magna* (Water flea)): 0.073 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants: ErC50 (*Raphidocelis subcapitata* (freshwater green alga)): 0.032 mg/l
Exposure time: 120 h
EC10 (*Raphidocelis subcapitata* (freshwater green alga)): 0.009 mg/l
End point: Growth rate
Exposure time: 120 h

M-Factor (Acute aquatic toxicity): 10

Toxicity to fish (Chronic toxicity): EC10: 0.00127 mg/l
Exposure time: 215 d

Species: *Pimephales promelas* (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):

EC10: 0.0109 mg/l
Exposure time: 21 d
Species: *Daphnia magna* (Water flea)

M-Factor (Chronic aquatic toxicity): 10

metalaxyl-M (ISO):

Toxicity to fish: LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (*Daphnia magna* (Water flea)): > 100 mg/l
Exposure time: 48 h

Toxicity to algae: ErC50 (*Raphidocelis subcapitata* (freshwater green alga)): 271 mg/l
Exposure time: 96 h
NOEC (*Raphidocelis subcapitata* (freshwater green alga)): 19.7 mg/l
End point: Growth rate

Toxicity to microorganisms: Exposure time: 96 h
EC50 (activated sludge): > 100 mg/l
Exposure time: 3 h

Toxicity to fish (Chronic toxicity):	NOEC: 50 mg/l Exposure time: 28 d Species: <i>Oncorhynchus mykiss</i> (rainbow trout)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):	NOEC: 25 mg/l Exposure time: 21 d Species: <i>Daphnia magna</i> (Water flea)

12.2 Persistence and degradability

Components:

mancozeb (ISO):

Biodegradability: Result: Not readily biodegradable.
Stability in water: Degradation half life: 5.8 - 55 h
Remarks: Product is not persistent.

metalaxyl-M (ISO):

Biodegradability: Result: Not readily biodegradable.
Stability in water: Degradation half life: 22.4 - 47.5 d
Remarks: Product is not persistent.

12.3 Bioaccumulative potential

Components:

mancozeb (ISO):

Bioaccumulation: Bioconcentration factor (BCF): < 100
Remarks: Low bioaccumulation potential.
Partition coefficient: n-octanol/water: log Pow: 1.38

metalaxyl-M (ISO):

Bioaccumulation: Remarks: Low bioaccumulation potential.
Partition coefficient: n-octanol/water: log Pow: 1.71 (25 °C)

12.4 Mobility in soil

Components:

mancozeb (ISO):

Distribution among environmental compartments: Remarks: Low mobility in soil.
Stability in soil: Dissipation time: 6 - 15 h
Percentage dissipation: 50 % (DT50)
Remarks: Product is not persistent.

metalaxyl-M (ISO):

Distribution among environmental compartments: Remarks: Metalaxyl has a range from low to very high mobility in soil depending on soil type.
Stability in soil: Dissipation time: < 50 d
Percentage dissipation: 50 % (DT50)
Remarks: Product is not persistent.

12.5 Results of PBT and vPvB assessment

Product:

Assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components:

mancozeb (ISO):

Assessment: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

metalaxyl-M (ISO):

Assessment: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Endocrine disrupting properties

Product:

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging: Empty remaining contents. Triple rinse containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

14.1 UN number

ADR	RID	IMDG	IATA
UN 3077	UN 3077	UN 3077	UN 3077

14.2 UN proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANCOZEB)
RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANCOZEB)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANCOZEB)
IATA : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANCOZEB)

14.3 Transport hazard class(es)

ADR	RID	IMDG	IATA
9	9	9	9

14.4 Packing group

ADR

Packing group : III
Classification Code : M7
Hazard Identification Number : 90

Labels : 9

Tunnel restriction code : (-)

RID

Packing group : III
Classification Code : M7
Hazard Identification Number : 90

Labels : 9

IMDG

Packing group : III

Labels : 9

EmS Code : F-A, S-F

IATA

Packing instruction (cargo aircraft): 956

Packing instruction (LQ): Y956

Packing group: III

Labels: Miscellaneous

IATA (Passenger)

Packing instruction (passenger aircraft): 956

Packing instruction (LQ): Y956

Packing group: III

Labels: Miscellaneous

14.5 Environmental hazards

ADR	RID	IMDG	IATA (Passenger)	IATA (Cargo)
Environmentally hazardous : yes	Environmentally hazardous : yes	Marine pollutant : yes	Environmentally hazardous : yes	Environmentally hazardous : yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15. REGULATORY INFORMATION

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

Relevant EU provisions transposed through retained EU law

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation: Not applicable

The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain): Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: Not applicable

UK REACH List of substances subject to authorisation (Annex XIV): Not applicable

GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation

15.2 Chemical Safety Assessment

A chemical safety assessment is not required for this substance when it is used in the specified applications.

SECTION 16. OTHER INFORMATION

Full text of H-Statements

H302:	Harmful if swallowed.
H317:	May cause an allergic skin reaction.
H318:	Causes serious eye damage.
H351:	Suspected of causing cancer.
H360d:	May damage the unborn child.
H373:	May cause damage to organs through prolonged or repeated exposure.
H400:	Very toxic to aquatic life.
H410:	Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.:	Acute toxicity
Aquatic Acute:	Short-term (acute) aquatic hazard
Aquatic Chronic:	Long-term (chronic) aquatic hazard
Carc. :	Carcinogenicity
Eye Dam.:	Serious eye damage
Repr.:	Reproductive toxicity
Skin Sens.:	Skin sensitisation
STOT RE :	Specific target organ toxicity - repeated exposure

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; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; LC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation or Standardization; KECL - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

Acute Tox. 4	H332
Skin Sens. 1	H317
Carc. 2	H351
Repr. 2	H361d
STOT RE 2	H373
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Classification procedure:

Based on product data or assessment
Based on product data or assessment
Calculation method
Calculation method
Calculation method
Based on product data or assessment
Based on product data or assessment

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

FUBOL® Gold WG

Water dispersible granule containing 3.88% w/w metalaxyl-M and 64% w/w mancozeb.

**Warning**

May cause an allergic skin reaction.

Harmful if inhaled.

Suspected of causing cancer.

Suspected of damaging the unborn child.

May cause damage to organs (Thyroid, Nervous system) through prolonged or repeated exposure.

Very toxic to aquatic life with long lasting effects.

Keep out of reach of children.

Obtain special instructions before use.

Use only outdoors or in a well-ventilated area.

Do not breathe dust.

Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Do not eat, drink or smoke when using this product.

IF exposed or concerned: Get medical advice/ attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/ attention.

Collect spillage.

Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-hazardous waste.

To avoid risks to human health and the environment comply with the instructions for use.

Product reg. no: MAPP 14605 **UFI:** 3GN3-F059-S002-JJ6W

IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL FUNGICIDE.

Crops	Maximum individual dose	Maximum number of treatments	Latest time of application
Potato	kg product/ha 1.9	per crop 3	days before harvest 7
Bulb onion and shallots	kg product/ha 1.9	per crop 3	days before harvest 28

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.

IMPORTANT: Note that goods treated under the terms of this Great Britain authorisation can only be legally marketed in Northern Ireland if they are in accordance with the statutory EU Maximum Residue Level (MRL) set under Regulation (EC) No 396/2005. This may also apply to residues in animal products where treated crops are fed to livestock. Growers are advised to draw this to the attention of distributors and retailers so that EU MRL breaches and any associated enforcement against goods marketed in Northern Ireland are avoided.

