

**HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.**

USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.

THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY.

**To avoid risks to man and the environment, comply with the instructions for use.**

#### IMPORTANT INFORMATION

FOR USE ONLY AS A HORTICULTURAL FUNGICIDE

**Situation:** Managed amenity turf  
**Maximum Individual Dose:** 8.0 litres product per hectare

**Maximum Number of Treatments:** Two per year

**Other Specific Restrictions:** For use only on golfing greens and tees, bowling greens and football pitches.

**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.**

9 UKE 0913 MASA A

**MASCOT**<sup>®</sup>  
CHEMICALS

**Mascalon**

Product Registration Number: MAPP 12385

An oil in water emulsion containing 45 g/litre myclobutanil.

A selective fungicide for the control of FUSARIUM PATCH in MANAGED AMENITY TURF.

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

READ DIRECTIONS FOR USE ON ATTACHED LEAFLET.

SHAKE WELL BEFORE USE.  
PROTECT FROM FROST.  
DO NOT STORE BELOW 5°C.

Pack size: 1 Litre e

Distributed by: Rigby Taylor Limited, Crown Lane, Horwich, Bolton, Lancashire, BL6 5HP Tel: 01204 677777

24 Hour Emergency Telephone Number: (0044) 1553 761251. \*Trademark of Dow AgroSciences LLC.

#### SAFETY PRECAUTIONS

##### Operator protection:

WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate and when handling contaminated surfaces. WEAR SUITABLE PROTECTIVE CLOTHING (IMPERMEABLE COVERALLS) AND SUITABLE PROTECTIVE GLOVES when applying by hand-held equipment.

WASH CONCENTRATE from skin or eyes immediately. WASH HANDS AND EXPOSED SKIN before eating, drinking or smoking and after work.

##### Environmental protection:

DO NOT CONTAMINATE SURFACE WATERS OR DITCHES with chemical or used container.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 metres of the top of the bank of a static or flowing waterbody, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1 metre of the top of a ditch which is dry at the time of application. Aim spray away from water. DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1 metre 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 Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer either a LERAP must be carried out in accordance with PSD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

##### Storage and Disposal:

RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.

LERAP B

This label is compliant with the CPA Voluntary Initiative Guidance



P0026117505

# DIRECTIONS FOR USE

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

## IMPORTANT NOTES

Do not mow within 24 hours after treatment.

## RESISTANCE MANAGEMENT

MASALON\* contains a sterol biosynthesis inhibitor fungicide (azole) and should be used as part of a resistance management strategy that includes use with fungicides with a different mode of action. To reduce the possibility of the development of resistance:

- Carry out careful monitoring. Target early infestations and apply when the disease is first seen. Repeat the application after 4 weeks only if needed.
- Apply no more than 2 sprays per year. If additional sprays are needed rotate with a turf fungicide with a different mode of action.
- Do not use reduced label rates.

## PROBLEM CONTROLLED

MASALON is a triazole fungicide with both preventative and curative action against Fusarium Patch in managed amenity turf. It may be applied at any time of the year.

## AREA OF USE

MASALON may be applied to golfing greens and tees, bowling greens and football pitches.

## APPLICATION TIMING

For optimum control apply MASALON before or at the first sign of disease. A repeat application may be made if required after 4 weeks.

A maximum of two applications can be made in one year.

## APPLICATION EQUIPMENT, RATE AND WATER VOLUME

Equipment	Turf area	Rate of MASALON	Water volume
Power sprayer	1 hectare	8 litres	500 litres
Hand-held Sprayer	100 m <sup>2</sup>	80 mls	5 litres

## SAFETY TO TURF GRASSES:

MASALON can be safely applied to young turf and established amenity turf grasses.

MASALON may be applied to newly sown turf at or after the two leaf growth stage.

\* Trademark of Dow AgroSciences LLC

Mascot is a registered trademark of Rigby Taylor Ltd.

MASALON has been tested on the following range of turf grass species:

Annual meadow-grass	Perennial ryegrass
Browntop bent	Smooth-stalked meadow-grass
Chewings fescue	Timothy
Creeping bent	

In view of the large number of turf grass cultivars grown consult manufacturer for current approved list or test MASALON for turf safety on a small area before overall application.

## MIXING

To ensure thorough mixing of the concentrate invert the container several times before opening. Half fill the spray tank with clean water. Add the required amount of MASALON, mix thoroughly and complete filling the tank. Maintain agitation during the spraying operation.

## SPRAY QUALITY

Apply MASALON as a MEDIUM spray as defined by the BCPC system.

## Dow AgroSciences Conditions of Supply

All goods supplied by us are of high grade and we believe them to be suitable but, as we cannot exercise control over their storage, handling, mixing or use, or the weather conditions before, during or after application which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded. No responsibility will be accepted by us or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

Approval Holder:

**Dow AgroSciences Limited**

Latchmore Court, Brand Street, Hitchin,

Hertfordshire. SG5 1NH.

Telephone: (01462) 457272

Fax: (01462) 426605

24 Hour Emergency Telephone Number: (0044) 1553 761251

# Safety Data Sheet

This Safety Data Sheet does not form part of the approved product label.

## Section 1. Identification of the substance/preparation and of the company/undertaking

### 1.1 Product identifiers

#### Product Name

MASALON® Fungicide

Revised: September 2013

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

#### Identified uses

Plant Protection Product

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

#### COMPANY IDENTIFICATION

Dow AgroSciences Limited  
A Subsidiary of The Dow Chemical Company  
Latchmore Court, Brand Street  
SG5 1NH Hitchin  
United Kingdom

[SDSQuestion@dow.com](mailto:SDSQuestion@dow.com)

### 1.4 EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** 00 31 115 694 982

**Local Emergency Contact:** 00 31 115 694 982

## Section 2. Hazards Identification

### 2.1 Classification of the substance or mixture

#### Classification according to EU Directives 67/548/EEC or 1999/45/EC

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 2.2 Label elements

#### Labelling according to EC Directives

##### Risk Phrases :

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Safety Phrases :

S35 - This material and its container must be disposed of in a safe way.  
S57 - Use appropriate containment to avoid environmental contamination.

To avoid risks to man and the environment, comply with the instructions for use.

### 2.3 Other Hazards

No information available.

## Section 3. Composition/information on ingredients

### 3.2 Mixture

This product is a mixture.

CAS-No. / EC-No. / Index	REACH No.	Amount	Component	Classification: REGULATION (EC) No 1272/2008
<b>CAS-No.</b> 88671-89-0 <b>EC-No.</b> 410-400-0 <b>Index</b> 613-134-00-5	—	4.5 %	myclobutanil	Acute Tox., 4, H302 Eye cor/irr, 2, H319 Repr., 2, H361d STOT RE, 2, H373 Aquatic Chronic, 2, H411
<b>CAS-No.</b> not available <b>EC-No.</b> 922-153-0	01- 2119451097-39	< 10.0 %	Hydrocarbons, C10-C13, aromatics, <1% naphthalene	Asp. Tox., 1, H304 Aquatic Chronic, 2, H411
<b>CAS-No.</b> 57-55-6 <b>EC-No.</b> 200-338-0	01- 2119456809-23	< 5.0 %	Propylene glycol#	Not classified
<b>CAS-No.</b> 108-94-1 <b>EC-No.</b> 203-631-1 <b>Index</b> 606-010-00-7	01- 2119453616-35	< 5.0 %	Cyclohexanone	Flam. Liq., 3, H226 Acute Tox., 4, H332 Acute Tox., 4, H302 Acute Tox., 3, H311 Skin cor/irr, 2, H315 Eye cor/irr, 1, H318

CAS-No. / EC-No. / Index	REACH No.	Amount	Component	Classification: REGULATION (EC) No 1272/2008
<b>CAS-No.</b> 68953-96-8 <b>EC-No.</b> 273-234-6	—	< 1.0 %	Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts	Skin cor/irr, 2, H315 Eye cor/irr, 1, H318 Aquatic Chronic, 2, H411
<b>CAS-No.</b> Not available <b>EC-No.</b> 918-668-5	01- 2119455851-35	< 1.0 %	Hydrocarbons, C9, aromatics	Flam. Liq., 3, H226 Asp. Tox., 1, H304 STOT SE, 3, H335 STOT SE, 3, H336 Aquatic Chronic, 2, H411

CAS-No. / EC-No. / Index	Amount	Component	Classification: 67/548/EEC
<b>CAS-No.</b> 68953-96-8 <b>EC-No.</b> 273-234-6	< 1.0 %	Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts	Xi: R38, R41; N: R51/53
<b>CAS-No.</b> Not available <b>EC-No.</b> 918-668-5	< 1.0 %	Hydrocarbons, C9, aromatics	R10; Xn: R65; Xi: R37; R66; R67; N: R51/53

# Substance(s) with an Occupational Exposure Limit.  
For the full text of the H-Statements mentioned in this Section, see Section 16.  
See Section 16 for full text of R-phrases.

CAS-No. / EC-No. / Index	Amount	Component	Classification: 67/548/EEC
<b>CAS-No.</b> 88671-89-0 <b>EC-No.</b> 410-400-0 <b>Index</b> 613-134-00-5	4.5 %	myclobutanil	Repr. 3: R63; Xn: R22; Xi: R36; N: R51, R53
<b>CAS-No.</b> not available <b>EC-No.</b> 922-153-0	< 10.0 %	Hydrocarbons, C10-C13, aromatics, <1% naphthalene	Xn: R65; R66; N: R51/53
<b>CAS-No.</b> 57-55-6 <b>EC-No.</b> 200-338-0	< 5.0 %	Propylene glycol#	Not classified.
<b>CAS-No.</b> 108-94-1 <b>EC-No.</b> 203-631-1 <b>Index</b> 606-010-00-7	< 5.0 %	Cyclohexanone	R10; Xn: R20/21/22; Xi: R38, R41

## Section 4. First-aid measures

### 4.1 Description of first aid measures

**General advice:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control centre or doctor for treatment advice. If breathing is difficult, oxygen should be administered by qualified personnel.

**Skin Contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

**Eye Contact:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control centre or doctor for treatment advice. Suitable emergency eye wash facility should be available in work area.

**Ingestion:** No emergency medical treatment necessary.

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

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated.

### 4.3 Indication of immediate medical attention and special treatment needed

Maintain adequate ventilation and oxygenation of the patient. May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants, antitussives and corticosteroids may be of help. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control centre or doctor, or going for treatment.

Repeated excessive exposure may aggravate preexisting lung disease.

## Section 5. Fire Fighting Measures

### 5.1 Extinguishing Media

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment.

**Extinguishing Media to Avoid:** Do not use direct water stream. May spread fire.

### 5.2 Special hazards arising from the substance or mixture

**Hazardous Combustion Products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

**Unusual Fire and Explosion Hazards:** Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is emitted when burned without sufficient oxygen.

### 5.3 Advice for firefighters

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discolouration of the container. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimise property damage. Water fog, applied gently may be used as a blanket for fire extinguishment. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

**Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

## Section 6. Accidental Release Measures

**6.1 Personal precautions, protective equipment and emergency procedures:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep upwind of spill. Ventilate area of leak or spill. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**6.2 Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

**6.3 Methods and materials for containment and cleaning up:** Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

## Section 7. Handling and Storage

### 7.1 Precautions for safe handling

#### Handling

**General Handling:** Keep out of reach of children. Do not swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing vapour or mist. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

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

#### Storage

Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

To maintain product quality, recommended storage temperature is  $> 5^{\circ}\text{C}$

### 7.3 Specific end uses

Refer to product label.

## Section 8. Exposure Controls / Personal Protection

### 8.1 Control parameters

#### Exposure Limits

Component	List	Type	Value
myclobutanol	Dow IHG	TWA	0.5 mg/m <sup>3</sup>
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	DNEL-Worker:	Dermal - Systemic Long Term.	12.5 mg/kg bw/day
	DNEL-Worker:	Inhalation - Systemic Long Term.	151 mg/m <sup>3</sup>
	DNEL-Consumer:	Dermal - Systemic Long Term.	7.5 mg/kg bw/day
	DNEL-Consumer:	Inhalation - Systemic Long Term.	32 mg/m <sup>3</sup>
	DNEL-Consumer:	Oral - Systemic Long Term.	7.5 mg/kg bw/day

<b>Cyclohexanone</b>	ACGIH	TWA	20 ppm SKIN
	ACGIH	STEL	50 ppm SKIN
	EU IOELV	TWA	40.8 mg/m <sup>3</sup> 10 ppm SKIN
	EU IOELV	STEL	81.6 mg/m <sup>3</sup> 20 ppm SKIN
	UK WEL	TWA	10 ppm SKIN
	UK WEL	STEL	20 ppm SKIN
	Dow IHG	TWA	7.5 ppm SKIN

<b>Propylene glycol</b>	Ireland OELV	TWA Particulate.	10 mg/m <sup>3</sup>
	UK WEL	TWA Particulate.	10 mg/m <sup>3</sup>
	UK WEL	TWA Total vapour and particulates.	474 mg/m <sup>3</sup> 150 ppm
	WEEL	TWA Aerosol.	10 mg/m <sup>3</sup>

<b>Hydrocarbons, C9, aromatics</b>	DNEL-Worker:	Dermal - Systemic Long Term.	25 mg/kg bw/day
	DNEL-Worker:	Inhalation - Systemic Long Term.	100 mg/m <sup>3</sup>
	DNEL-Consumer:	Dermal - Systemic Long Term.	11 mg/kg bw/day
	DNEL-Consumer:	Inhalation - Systemic Long Term.	32 mg/m <sup>3</sup>
	DNEL-Consumer:	Oral - Systemic Long Term.	11 mg/kg bw/day

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

A "skin" notation following the inhalation exposure guideline refers to the potential for dermal absorption of the material including mucous membranes and the eyes either by contact with vapours or by direct skin contact. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimise dermal exposures should be considered.

## 8.2 Exposure controls

### Personal Protection

**Eye/Face Protection:** Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent. If exposure causes eye discomfort, use a full-face respirator.

**Skin Protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Hand protection:** Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Polyethylene. Ethyl

vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). Styrene/butadiene rubber. Viton. Examples of acceptable glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 4 or higher (breakthrough time greater than 120 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 1 or higher (breakthrough time greater than 10 minutes according to EN 374) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Respiratory Protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2.

**Ingestion:** Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

### Engineering Controls

**Ventilation:** Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

## Section 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

#### Physical State

Liquid.

#### Colour

White to gray

#### Odour

Aromatic

#### Odour Threshold

No test data available

#### pH

7.3

#### Melting Point

Not applicable

#### Freezing Point

No test data available

#### Boiling Point (760 mmHg)

No test data available.

#### Flash Point - Closed Cup

> 100 °C *EC Method A9*

#### Evaporation Rate (Butyl Acetate = 1)

No test data available

**Flammable Limits In Air****Lower:** No test data available**Upper:** No test data available**Vapour Pressure**

No test data available

**Vapour Density (air = 1)**

No test data available

**Specific Gravity (H<sub>2</sub>O = 1)**1.0073 *EC Method A3***Solubility in water (by weight)**

emulsifiable

**Partition coefficient, n-octanol/water (log Pow)**

No data available for this product. See Section 12 for individual component data.

**Autoignition Temperature**

No test data available

**Decomposition Temperature**

No test data available

**Explosive properties**No *EEC A14***Oxidising properties**

not applicable

**9.2 Other information****Liquid Density**1.0 g/ml @ 20 °C *Estimated.***Surface tension**44.5 mN/m @ 20 °C *EC Method A5***Section 10. Stability and Reactivity****10.1 Reactivity**

No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability**

Stable under recommended storage conditions. See Storage, Section 7.

**10.3 Possibility of hazardous reactions**

Polymerization will not occur by itself. Masses of more than one pound (0.5 kg) of product plus an aliphatic amine will cause irreversible polymerization with considerable heat build-up.

**10.4 Conditions to Avoid:** Avoid temperatures above 300 °C. Potentially violent decomposition can occur above 350 °C. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid.**10.5 Incompatible Materials:** Avoid contact with oxidising materials. Avoid contact with: Acids. Bases. Avoid unintended contact with amines.**10.6 Hazardous decomposition products**

Decomposition products depend upon temperature, air supply and the presence of other materials. Gases are released during decomposition.

**Section 11. Toxicological Information****11.1 Information on toxicological effects****Acute Toxicity****Ingestion**

Very low toxicity if swallowed. Excessive exposure may cause neurologic signs and symptoms. Observations in animals include: Convulsions. Muscle spasms or twitches.

As product: Single dose oral LD50 has not been determined.

For similar material(s): LD50, rat, female 3,749 mg/kg

**Aspiration hazard**

Based on physical properties, not likely to be an aspiration hazard.

**Dermal**

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

For similar material(s): LD50, rat &gt; 2,000 mg/kg

No deaths occurred at this concentration.

**Inhalation**

Prolonged excessive exposure may cause adverse effects. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. May cause central nervous system effects. Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed. Signs and symptoms of excessive exposure may include: Nausea and/or vomiting. Sweating.

As product: The LC50 has not been determined.

**Eye damage/eye irritation**

May cause moderate eye irritation. May cause slight corneal injury. Vapour may cause eye irritation experienced as mild discomfort and redness. In humans, eye irritation resulted from brief (minutes) exposure to cyclohexanone vapor concentration of 50 ppm and above.

**Skin corrosion/irritation**

Brief contact may cause slight skin irritation with local redness.

**Sensitisation****Skin**

For similar material(s): Did not cause allergic skin reactions when tested in guinea pigs.

**Respiratory**

No relevant data found.

**Repeated Dose Toxicity**

For the active ingredient(s): In animals, effects have been reported on the following organs: Adrenal gland. Kidney. Liver. Testes. Thyroid. For the minor component(s): In animals, effects have been reported on the following organs: Central nervous system. Gastrointestinal tract. Kidney. Liver. Thyroid. Urinary tract. Lung.

**Chronic Toxicity and Carcinogenicity**

Active ingredient did not cause cancer in laboratory animals.

### Developmental Toxicity

For the active ingredient(s): Has been toxic to the fetus in lab animals at doses nontoxic to the mother. Did not cause birth defects in laboratory animals.

### Reproductive Toxicity

For the active ingredient(s): In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. For the minor component(s): Cyclohexanone caused reduced growth and survival of offspring in an animal reproduction study. Dose levels producing this effect also caused central nervous system effects in parental animals. In animal studies, has been shown to interfere with reproduction in males. Effects have been seen only at doses that produced significant toxicity to the parent animals.

### Genetic Toxicology

For the active ingredient(s): In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative. For the minor component(s): In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were inconclusive

#### Component Toxicology - Myclobutanil

Inhalation	LC50, 4 h, Aerosol, rat, male and female > 5.1 mg/l
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#### Component Toxicology - Hydrocarbons, C10-C13, aromatics, <1% naphthalene

Inhalation	As product: The LC50 has not been determined.
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Inhalation	For similar material(s): LC50, Aerosol, rat > 4.778 mg/l
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#### Component Toxicology - Propylene glycol

Inhalation	No deaths occurred at this concentration. LC50, 2 h, Aerosol, rabbit 317.042 mg/l
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#### Component Toxicology - Cyclohexanone

Inhalation	LC50, 4 h, Vapor, rat, male and female > 6.2 mg/l
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Inhalation	No deaths occurred at this concentration.
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#### Component Toxicology - Hydrocarbons, C9, aromatics

Inhalation	LC50, 4 h, rat > 10.2 mg/l
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## Section 12. Ecological Information

### 12.1 Toxicity

For similar material(s): Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species).

### Fish Acute & Prolonged Toxicity

For similar material(s): LC50, Oncorhynchus mykiss (rainbow trout), 96 h: 10.3 mg/l

### Aquatic Invertebrate Acute Toxicity

For similar material(s): EC50, Daphnia magna (Water flea), static, 48 h, immobilization: 7.1 mg/l

### Aquatic Plant Toxicity

For similar material(s): EbC50, Pseudokirchneriella subcapitata (green algae), static test, biomass growth inhibition, 72 h: 8.2 mg/l

### 12.2 Persistence and Degradability

#### Data for Component: myclobutanil

Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

#### Stability in Water (1/2-life):

> 365 d

#### OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
22.4 %	28 d	OECD 301D Test	fail

#### Indirect Photodegradation with OH Radicals

Rate Constant	Atmospheric Half-life	Method
1.69E-11 cm <sup>3</sup> /s	7.6 h	Measured

#### Data for Component: Hydrocarbons, C10-C13, aromatics, <1% naphthalene

For similar material(s): Biodegradation may occur under aerobic conditions (in the presence of oxygen). Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

#### Data for Component: Propylene glycol

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Biodegradation may occur under anaerobic conditions (in the absence of oxygen).

#### OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
81 %	28 d	OECD 301F Test	pass
96 %	64 d	OECD 306 Test	Not applicable

#### Data for Component: Cyclohexanone

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

#### OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
87 %	14 d	OECD 301C Test	Not applicable



Data for Component: **Hydrocarbons, C9, aromatics**

|| For the major component(s): Material is expected to biodegrade only very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability. For some component(s): Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

### 12.3 Bioaccumulative potential

Data for Component: **myclobutanol**

|| **Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

|| **Partition coefficient, n-octanol/water (log Pow):** 3.17 Measured

|| **Bioconcentration Factor (BCF):** 8.3; Oncorhynchus mykiss (rainbow trout)

Data for Component: **Hydrocarbons, C10-C13, aromatics, <1% naphthalene**

|| **Bioaccumulation:** For similar material(s): Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

Data for Component: **Propylene glycol**

|| **Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

|| **Partition coefficient, n-octanol/water (log Pow):** -1.07 Measured

|| **Bioconcentration Factor (BCF):** 0.09; Estimated.

Data for Component: **Cyclohexanone**

|| **Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

|| **Partition coefficient, n-octanol/water (log Pow):** 0.81 Measured

Data for Component: **Hydrocarbons, C9, aromatics**

|| **Bioaccumulation:** For the major component(s): Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). For the minor component(s): Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

### 12.4 Mobility in soil

Data for Component: **myclobutanol**

|| **Mobility in soil:** Potential for mobility in soil is low (Koc between 500 and 2000)., Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

|| **Partition coefficient, soil organic carbon/water (Koc):** 517 **Henry's Law Constant (H):** 4.33E-04 Pa\*m<sup>3</sup>/mole. Measured

Data for Component: **Hydrocarbons, C10-C13, aromatics, <1% naphthalene**

|| **Mobility in soil:** No relevant data found.

Data for Component: **Propylene glycol**

|| **Mobility in soil:** Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process., Potential for mobility in soil is very high (Koc between 0 and 50).

|| **Partition coefficient, soil organic carbon/water (Koc):** < 1 Estimated.

|| **Henry's Law Constant (H):** 1.2E-08 atm\*m<sup>3</sup>/mole Measured

Data for Component: **Cyclohexanone**

|| **Mobility in soil:** Potential for mobility in soil is very high (Koc between 0 and 50).

|| **Partition coefficient, soil organic carbon/water (Koc):** 15 Estimated.

|| **Henry's Law Constant (H):** 1.04E-05 atm\*m<sup>3</sup>/mole Measured

Data for Component: **Hydrocarbons, C9, aromatics**

|| **Mobility in soil:** For the major component(s):, Potential for mobility in soil is low (Koc between 500 and 2000).

### 12.5 Results of PBT and vPvB assessment

Data for Component: **myclobutanol**

|| 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).

Data for Component: **Hydrocarbons, C10-C13, aromatics, <1% naphthalene**

|| 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).

Data for Component: **Propylene glycol**

|| 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).

Data for Component: **Cyclohexanone**

|| This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Data for Component: **Hydrocarbons, C9, aromatics**

|| This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

### 12.6 Other adverse effects

Data for Component: **myclobutanol**

|| This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

Data for Component: **Hydrocarbons, C10-C13, aromatics, <1% naphthalene**

|| This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

Data for Component: **Propylene glycol**

|| This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

Data for Component: Cyclohexanone

|| This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

Data for Component: Hydrocarbons, C9, aromatics

|| This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

### Section 13. Disposal Considerations

#### 13.1 Waste treatment methods

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

### Section 14. Transport Information

#### ADR/RID

##### 14.1 UN number

Not applicable

##### 14.2 UN proper shipping name

Proper Shipping Name: NOT REGULATED

##### 14.3 Transport hazard class(es)

Not applicable

##### 14.4 Packing Group

Not applicable

##### 14.5 Environmental hazards

Not considered environmentally hazardous based on available data

##### 14.6 Special precautions for user

Special Provisions: no data available

Hazard identification No: no data available

#### ADNR / ADN

##### 14.1 UN number

Not applicable

##### 14.2 UN proper shipping name

Proper Shipping Name: NOT REGULATED

##### 14.3 Transport hazard class(es)

Not applicable

##### 14.4 Packing Group

Not applicable

##### 14.5 Environmental hazards

Not considered environmentally hazardous based on available data

##### 14.6 Special precautions for user

no data available

#### IMDG

##### 14.1 UN number

Not applicable

##### 14.2 UN proper shipping name

Proper Shipping Name: NOT REGULATED

##### 14.3 Transport hazard class(es)

Not applicable

##### 14.4 Packing Group

Not applicable

##### 14.5 Environmental hazards

Not considered environmentally hazardous based on available data

##### 14.6 Special precautions for user

EMS Number: Not applicable

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

Not applicable

#### ICAO/IATA

##### 14.1 UN number

Not applicable

##### 14.2 UN proper shipping name

Proper Shipping Name: NOT REGULATED

##### 14.3 Transport hazard class(es)

Not applicable

##### 14.4 Packing Group

Not applicable

##### 14.5 Environmental hazards

Not considered environmentally hazardous based on available data

##### 14.6 Special precautions for user

no data available

## Section 15. Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture European Inventory of Existing Commercial Chemical Substances (EINECS)

The components of this product are on the EINECS inventory or are exempt from inventory requirements.

Product Registration Number: MAPP 12385

#### Registration Information

MAPP 12385

### 15.2 Chemical Safety Assessment

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

## Section 16. Other Information

### Hazard statement in the composition section

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

### Risk-phrases in the Composition section

R10	Flammable.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R22	Harmful if swallowed.
R36	Irritating to eyes.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R63	Possible risk of harm to the unborn child.
R65	Harmful; may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

#### Revision

Identification Number: 1001717 / 3027 / Issue Date 2013/08/06 / Version: 3.0

DAS Code: GF-1619

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

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**HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.**

USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.

THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY.

**To avoid risks to man and the environment, comply with the instructions for use.**

#### **IMPORTANT INFORMATION**

FOR USE ONLY AS A HORTICULTURAL FUNGICIDE

**Situation:** Managed amenity turf  
**Maximum Individual Dose:** 8.0 litres product per hectare

**Maximum Number of Treatments:** Two per year

**Other Specific Restrictions:** For use only on golfing greens and tees, bowling greens and football pitches.

**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.**

9 UKE 0913 MASA A

**MASCOT**<sup>®</sup>  
CHEMICALS

**Masalon**<sup>®</sup>

Product Registration Number: MAPP 12385

An oil in water emulsion containing 45 g/litre myclobutanil.

A selective fungicide for the control of FUSARIUM PATCH in MANAGED AMENITY TURF.

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

**READ DIRECTIONS FOR USE ON ATTACHED LEAFLET.**

**SHAKE WELL BEFORE USE.  
PROTECT FROM FROST.  
DO NOT STORE BELOW 5°C.**

Pack size: 1 Litre e

#### **SAFETY PRECAUTIONS**

##### **Operator protection:**

WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate and when handling contaminated surfaces.

WEAR SUITABLE PROTECTIVE CLOTHING (IMPERMEABLE COVERALLS) AND SUITABLE PROTECTIVE GLOVES when applying by hand-held equipment.

WASH CONCENTRATE from skin or eyes immediately.

WASH HANDS AND EXPOSED SKIN before eating, drinking or smoking and after work.

##### **Environmental protection:**

DO NOT CONTAMINATE SURFACE WATERS OR DITCHES with chemical or used container.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 metres of the top of the bank of a static or flowing waterbody, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower

buffer zone, or within 1 metre of the top of a ditch which is dry at the time of application. Aim spray away from water. DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1 metre 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 Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer either a LERAP must be carried out in accordance with PSD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

##### **Storage and Disposal:**

RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.

LERAP B

This label is compliant with the CPA Voluntary Initiative Guidance



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