

# METCOSTAR

MAPP 17446

CONTAINS 60 G/L METCONAZOLE AS AN EMULSIFIABLE CONCENTRATE.

METCOSTAR IS A FUNGICIDE USED FOR THE CONTROL OF A RANGE OF DISEASES IN CEREALS, PEAS, OILSEED RAPE, LUPINS AND FIELD BEANS.



**DANGER**

CAUSES SERIOUS EYE DAMAGE.  
CAUSES SKIN IRRITATION.  
MAY CAUSE AN ALLERGIC SKIN REACTION.  
VERY TOXIC TO AQUATIC LIFE.  
VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.  
FLAMMABLE LIQUID AND VAPOUR.  
MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.  
MAY CAUSE RESPIRATORY IRRITATION  
SUSPECTED OF DAMAGING THE UNBORN CHILD.

KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. – NO SMOKING.  
WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION/FACE PROTECTION.  
DO NOT BREATHE DUST/GAS/MIST/VAPOURS.  
AVOID RELEASE TO THE ENVIRONMENT.  
USE EXPLOSION-PROOF ELECTRICAL VENTILATING/LIGHTING/EQUIPMENT.  
CONTAMINATED WORK CLOTHING SHOULD NOT BE ALLOWED OUT OF THE WORKPLACE.  
KEEP CONTAINER TIGHTLY CLOSED.  
USE ONLY NON-SPARKING TOOLS.  
GROUND/BOND CONTAINER AND RECEIVING EQUIPMENT.  
IF SWALLOWED: RINSE MOUTH. DO NOT INDUCE VOMITING.

IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO.  
IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER.  
IN CASE OF FIRE: USE EXTINGUISHING POWDER, FOAM OR CO2 FOR EXTINCTION.  
IF EXPOSED OR CONCERNED: GET MEDICAL ADVICE/ATTENTION.  
REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING.  
STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER TIGHTLY CLOSED.  
STORE LOCKED UP.  
DISPOSE OF CONTENTS/CONTAINER TO HAZARDOUS OR SPECIAL WASTE COLLECTION POINT.

**APPROVAL HOLDER AND MARKETING COMPANY:** Life Scientific Limited, NovaUCD, Belfield Innovation Park, University College Dublin, Belfield, Dublin 4, Ireland Tel: +353 (0) 1 2832024

**TRANSPORT INFORMATION:** UN No.: 3082, Class: 9, Packaging Group: III, Marine pollutant

**THE (COSHH) CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS MAY APPLY TO THE USE OF THIS PRODUCT AT WORK.**

**FOR 24 HOUR EMERGENCY INFORMATION CONTACT +353 (0) 1 2832024**

LABEL VERSION METCQ/UK/V1

**PROTECT FROM FROST**

**MADE IN EU**

**SHAKE WELL BEFORE USE**

**BATCH NO.**

**NET CONTENTS: 5 LITRES** 

**IMPORTANT INFORMATION  
FOR USE ONLY AS AN AGRICULTURAL FUNGICIDE**

<b>CROPS AND SITUATIONS</b>	<b>MAXIMUM INDIVIDUAL DOSE (LITRES PRODUCT/HA)</b>	<b>MAXIMUM TOTAL DOSE PER CROP</b>	<b>LATEST TIME OF APPLICATION</b>
Wheat, durum wheat, barley, rye and triticale	1.5 L/ha	3.0 L/ha	Up to and including carvopsis watery ripe stage (GS71).
Oilseed rape	1.2 L/ha	2.4 L/ha	10% of pods at final size
Vining peas, combining peas, field beans and lupins	1.2 L/ha	2.4 L/ha	14 days before harvest

**Other specific restrictions**

A MINIMUM INTERVAL OF 14 DAYS MUST BE OBSERVED BETWEEN APPLICATIONS ON OILSEED RAPE, PEAS, BEANS AND LUPINS.

A MINIMUM INTERVAL OF 21 DAYS MUST BE OBSERVED BETWEEN APPLICATIONS ON CEREALS.

TO PROTECT BIRDS, ONLY ONE APPLICATION IS ALLOWED ON CEREALS BEFORE GS 29 (END OF TILLERING).

**READ THE LABEL AND SAFETY PRECAUTIONS BEFORE USING. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTANT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS**

**SAFETY PRECAUTIONS**

**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), SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD) when handling the concentrate.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) and SUITABLE PROTECTIVE GLOVES when in contact with 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.

DO NOT BREATHE spray mist or vapour. Avoid working in spray mist.

IF SWALLOWED, do not induce vomiting. Seek medical advice immediately and show this container or label.

WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.

WASH HANDS and exposed skin before meals and after work.

**Environmental Protection**

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.

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

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5m of the top of the bank of a static or flowing water body unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone or within 1m 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 m of the top of any bank of static or flowing water body. 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, either a LERAP must be carried out in accordance with CRD's 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.

**Storage and Disposal**

DO NOT RE-USE CONTAINER for any purpose.

STORE IN ORIGINAL CONTAINER tightly closed in a safe place.

WASH OUT CONTAINER THOROUGHLY and dispose of safely.

PROTECT FROM FROST. DO NOT STORE IN DIRECT SUNLIGHT.

**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.

METCOSTAR can be used on all varieties of wheat, barley, combine and vining peas, field beans, rye, triticale and durum wheat. It has both protectant and curative activity against a wide spectrum of diseases in these crops. However that the safety to lupins has not yet been fully established and a small area of the crop should be treated to confirm safety on your variety before treating the whole crop.

**RESTRICTIONS**

- DO NOT apply METCOSTAR to oilseed rape that is damaged or stressed by previous pesticide applications, nutrient deficiencies, pest attack or adverse weather conditions such as drought, frost or water-logged soils.
- Do not apply in mixture with pyrethroids to oilseed rape when in flower.
- Do not add additional adjuvant to the tank when using in cereals, oilseed rape or legumes.

**RESISTANCE**

METCOSTAR is a DMI fungicide (FRAC mode of action code 3).

Resistance to some DMI fungicides has been identified in Septoria leaf blotch (*Mycosphaerella graminicola*) which may seriously affect the performance of some products. For further advice on resistance management in DMI's contact your agronomist or specialist advisor, and



LERAP  
B

visit the FRAG-UK website: <http://frag.csl.gov.uk/cropspecific.cfm>

To avoid resistance do not apply repeated applications of METCOSTAR alone on the same crop against the same disease. Powdery mildew in cereals is also a disease known to develop resistance to fungicides and application of METCOSTAR in tank-mixture or sequence with fungicides with a different mode of action (e.g. morpholines) is important to combat the threat of resistance.

## CROP SPECIFIC INFORMATION

### 1. Cereals:

METCOSTAR is a broad spectrum fungicide with curative and protectant activity which can be used on all commercial varieties of winter and spring wheat, durum wheat, winter and spring barley, triticale and rye for disease control as summarised in the table below:

	Winter wheat	Spring wheat	Durum wheat	Winter barley	Spring barley	Triticale	Rye
<i>Septoria tritici</i>	C	C	C			C	
Yellow rust	C	C	C	C	C	C	C
Brown rust	C	C		C	C		
<i>Rhynchosporium</i>				R	R		R
Net blotch				R	R		
Powdery mildew	MC	MC	MC	MC	MC	MC	MC
Ear <i>Fusarium</i>	GR	GR	GR				

Application at an early stage of mildew development (not more than 3 % infection on any green leaf) will give moderate control. Where mildew has become established, the use of a specific mildewicide will improve control and help prevent the development of resistant strains.

For optimum results on yellow rust apply before any leaf has more than 1 % infection or as a preventative treatment on susceptible varieties after the flag leaf has fully emerged (GS 38).

Good reduction of ear *Fusarium* may be achieved when applied between full ear emergence and anthesis complete (GS 69).

For control of brown rust treat susceptible varieties as soon as rust is seen and spray more resistant varieties before any of the top three leaves have more than 1-2 % infection.

Spray as soon as net blotch is seen on any of the top three leaves. A further treatment will be necessary where disease is well established.

An application of 1.5 l/ha METCOSTAR should be applied at the first sign of disease in the crop. A second application of 1.5 l/ha can be made up to when the caryopsis is watery ripe (GS 71) provided that an interval of at least 21 days is maintained between applications.

### 2. Winter & spring oilseed rape:

METCOSTAR will control *Alternaria* spp. and give a reduction in Phoma Leaf Spot, Phoma Stem Canker and Light Leaf Spot in oilseed rape.

An application of 1.2 l/ha METCOSTAR should be applied at the first sign of disease in the crop. A second application of 1.2 l/ha can be made up to when 10% of the pods reach their final size provided that an interval of at least 14 days is maintained between applications.

Note: An application of 1.2 l/ha METCOSTAR to actively growing oilseed rape at the stem extension stage can also give a reduction in height which may be useful in reducing the risk of crop lodging.

### 3. Combining peas, vining peas:

METCOSTAR at 1.2 l/ha will control rust in peas and will give a reduction in the severity of *Ascochyta*, *Mycosphaerella* and *Botrytis*. Rust should be treated at the first sign of rust pustules in the crop. *Ascochyta* and *Mycosphaerella* should be treated at the start of flowering and *Botrytis* is best treated at mid flowering. If necessary, a second treatment of 1.2 l/ha should be applied 3 – 4 weeks after the first treatment. An interval of at least 14 days must be maintained between the two applications and the latest time of treatment is 14 days before harvest.

Consult processor before using on vining peas grown for processing.

### 4. Winter and spring field beans:

METCOSTAR at 1.2 l/ha will control rust in beans. Rust should be treated at the start of petal fall in the crop. If necessary, a second treatment of 1.2 l/ha should be applied 3 – 4 weeks after the first treatment. An interval of at least 14 days must be maintained between the two applications and the latest time of treatment is 14 days before harvest.

### 5. Lupins:

As a qualified minor use recommendation, METCOSTAR at 1.2 l/ha will control rust in lupins and will give a reduction in the severity of *Ascochyta* and *Botrytis*. Rust, *Ascochyta* and *Botrytis* should be treated at the start of petal fall. If necessary, a second treatment of 1.2 l/ha should be applied 3 – 4 weeks after the first treatment. An interval of at least 14 days must be maintained between the two applications and the latest time of treatment is 14 days before harvest.

## APPLICATION METHODS

METCOSTAR should be applied as a FINE or MEDIUM spray as defined by BCPC in a water volume of 200 l/ha in cereals, 200 – 400 l/ha in oilseed rape and legumes where the higher water volume may be required to penetrate a dense crop canopy. Good coverage of the target is essential for optimum activity.

Before spraying it is important to check all hoses, filters and nozzles, and to ensure that the sprayer is clean and correctly set to give an even application at the correct volume. It is also advisable to ensure that the application equipment is free of previous pesticide residues that may damage the crop.

Three quarter fill the spray tank with clean water. Begin agitation and add the required quantity of METCOSTAR. Top up the tank and agitate the mixture thoroughly before and during spraying. Adjust the boom height so that the spray from alternate nozzles just overlaps above the target and

maintain a forward speed of 6-8 kph for tractor-mounted and trailed sprayers.

After application, rinse out the sprayer with a minimum of two rinses to remove residues from the tank and hoses using a proprietary sprayer cleaner.

#### COMPATIBILITY

Provided that all product recommendations are adhered to, METCOSTAR may be applied in mixture with the following pesticides. Note that METCOSTAR must not be applied in mixture with pyrethroids to oilseed rape when the crop is in flower.

alpha-cypermethrin (MAPP 10216)  
alpha-cypermethrin (MAPP 10216) + carbetamide (MAPP 13045)  
alpha-cypermethrin (MAPP 10216) + cycloxydim (MAPP 12930)\*  
alpha-cypermethrin (MAPP 10216) + metazachlor (MAPP 11733)  
alpha-cypermethrin (MAPP 10216) + metazachlor + quinmerac (MAPP 11732)  
alpha-cypermethrin (MAPP 10216) + propaquizafop (MAPP 14552)  
alpha-cypermethrin (MAPP 10216) + propyzamide (MAPP 13716)  
cypermethrin (various)  
iprodione + thiophanate-methyl (MAPP 11740)  
lambda-cyhalothrin (MAPPs 12629,14201 or 15093)

\* Include required adjuvant oil in this tank mixture

#### FOLLOWING CROPS

After application of METCOSTAR to cereals, oilseed rape or legumes, any of the following crops may be sown but the effects on crops not listed have not been evaluated. Acceptable following crops are:

Beans	Cabbage	Carrots	Cereals
Clover	Lettuce	Linseed	Maize
Oilseed rape	Onions	Peas	Potatoes
Ryegrass	Sugar beet	Sunflower	

#### 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 and 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 and 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.

#### SAFETY DATA SHEET

##### METCOSTAR

MSDS DATE: 10/02/16

##### VERSION 1.1

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

##### 1.1 Product Identifier

Product Name: Metcostar

Product Description: Emulsifiable Concentrate

Chemical description of active substance(s): 5-[[4-chlorophenyl]methyl]-2,2-dimethyl-1-(1H-1,2,4-triazole-1-yl)methyl)cyclopentanol  
GCPF code: EC

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

Product Use: Agriculture – Fungicide

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

Company: Life Scientific Ltd,

NovajCD,

Belfield Innovation Park

Dublin 4

Ireland

Telephone: +353 (0) 1 2832024

Fax: +353 (0) 1 2832026

Web: www.lifescientific.com

##### 1.4 Emergency contact information

In case of Emergency, [www.nps.org](http://www.nps.org)  
[www.nhsdirect.nhs.uk](http://www.nhsdirect.nhs.uk) - 0845 4647 or 111  
[www.nhs24.com](http://www.nhs24.com) - 08454 24 24 24

#### 2. HAZARD IDENTIFICATION

##### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) 1272/2008 (See table in section 3)

Flam. Liq.	Category 3	H226
Asp. Tox.	Category 1	H304
Skin Corr./Irrit	Category 2	H315
Skin Sens.	Category 1	H317
Eye Dam./Irrit	Category 1	H318
Repr.	Category 2	H361(d)
STOT SE	Category 3	H335
Aquatic Acute	Category 1	H400
Aquatic Chronic	Category 1	H410

##### 2.2 Label Elements

Classification according to Regulation (EC) 1272/2008 (See table in section 3)

Signal Word: Danger

Hazard pictograms:



## Hazard Statements:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation
H361D	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

## Precautionary Statements:

P210	Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P260i	Do not breathe dust/gas/mist/vapours.
P273	Avoid release to the environment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P233	Keep container tightly closed.
P242	Use only non-sparking tools.
P240	Ground/bond container and receiving equipment.
P301+P330+P331	IF SWALLOWED: rinse mouth. DO NOT induce vomiting.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P370+P378.1	In case of fire: Use extinguishing powder, foam or CO2 for extinction.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P361	Remove/Take off immediately all contaminated clothing.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to hazardous or special waste collection point.

## 2.3 Other Hazards

Special labelling of certain mixtures. To avoid risks to man and environment comply with the instructions for use.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1 Substances

None

### 3.2 Mixtures

**Chemical Name:** Metconazole

**CAS No.:** 125116-23-6

**EC No.:**

**Classification (Regulation (EC) No 1272/2008):** Acute Tox 4; H302,

Repr. 2; H361D; Aquatic Chronic 2; H411

**Concentration (% w/w):** 6.7

**Chemical Name:** Fatty Alcohol ethoxylate

**CAS No.:** 68439-46-3

**EC No.:**

**Classification (Regulation (EC) No 1272/2008):** Acute Tox 4; H302,

Eye Dam 1; H318

**Concentration (% w/w):** <50

**Chemical Name:** Pentanol

**CAS No.:** 94624-12-1

**EC No.:** 305-536-1

**Classification (Regulation (EC) No 1272/2008):** Flam. Liq. 3; H226, Acute Tox 4; H332, STOT SE 3; H335

**Concentration (% w/w):** <30

**Chemical Name:** Naphtha (petroleum), heavy alkylate

**CAS No.:** 64741-65-7

**EC No.:** 265-067-2

**Classification (Regulation (EC) No 1272/2008):** Asp. Tox 1; H304, Flam. Liq. 3; H226, Aquatic Chronic 2; H413

**Concentration (% w/w):** <25

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

General information: In the event of any complaints or symptoms, avoid further exposure, treat symptomatically. If unwell, consult a physician showing the product container, label or this safety data sheet.

Inhalation: If inhaled, inhaled corticosteroid dose aerosol remove victim to fresh air. If breathing is difficult, give oxygen. If breathing is irregular or stopped, give artificial respiration. Consult a physician or Poison Control Centre immediately.

Ingestion: DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek medical advice immediately and show the product container, label or data sheet if possible.

Skin contact: Remove contaminated clothing immediately. Wash skin immediately with plenty of water. Apply sterile dressings to any irritation. If skin irritation persists, consult a physician.

Eye contact: Remove contact lenses if present. Rinse immediately with plenty of water, with the eyelid open for at least 15 minutes. Consult a physician.

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

Most important symptoms and effects are described in section 2.2. Any further symptoms and effects are unknown. If unsure always consult a physician.

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

Notes to physicians: Treat symptomatically. Administer corticosteroid dose aerosol to prevent pulmonary edema. No other known antidote.

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media

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

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

This product contains combustible organic components. Fire may produce a thick black smoke containing hazardous products of combustion. Exposure to products of combustion may be a health hazard. Do not allow run-off from fire fighting to enter drains or water courses.

### 5.3 Advice for fire-fighters

Wear self-contained breathing apparatus with full face shield. Fight fire from a safe distance and a protected location.

Cool closed containers exposed to fire with water spray. Dispose of debris in accordance with official regulations.

## 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use appropriate personal protective equipment (see section 8).

## 6.2 Environmental precautions

Prevent further leaking or spillage if safe to do so. Prevent entry into sewers and public waters. In the event of a major spillage, contact an expert immediately. Notify appropriate authorities if the product enters sewers or public waters. Make provisions to collect extinguishing water after fires. If the product contaminates rivers and lakes or drains, inform respective authorities

## 6.3 Methods and materials for containment and cleaning up

Contain spillage. Use non-combustible absorbent material to absorb spillage and place in container for disposal according to local/national legislation.

## 6.4 Reference to other sections

See Section 7 for information on handling and storage and Section 8 for information on PPE and section 13 for disposal considerations.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

No special technical protective measures required if stored and handled correctly. Read label before use. DO NOT eat, drink or smoke during use. Avoid contact with skin and eyes. Vapours may form ignitable mixture with air. Prevent electrostatic charge and keep clear of any sources of ignition.

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

Segregate from foods and animal feeds.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

Protect from temperatures below 0°C. The product crystallizes below the limit temperature.

Protect from temperatures above 30°C. Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

### 7.3 Specific end use(s)

Agriculture – Plant protection, Fungicide

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

### 8.1 Control parameters

None

### 8.2 Exposure controls

Respiratory protection: Protection provided by air-purifying respirators is limited. A combination gas, vapour and particulate

respirator may be necessary until effective technical measures are introduced. Use self-contained breathing apparatus in case of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

Skin protection: Wear suitable chemical-resistant clothing based on the potential for skin contact. Wash body thoroughly with soap and water after removing protective clothing. Decontaminate protective clothing before re-use.

Wear an impervious protective suit as appropriate.

Hand protection: Use nitrile rubber or other suitable chemical-resistant gloves. Gloves should have a minimum breakthrough

time that is appropriate to the duration of exposure. Gloves should be changed when breakthrough is suspected.

Eye protection: Eye protection is not usually required. Follow any site-specific eye protection policies. Eye/face protection should be certified to EN 166.

Engineering measures: Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. If airborne mists or vapours are generated, use local exhaust ventilation controls. Assess

exposure and use appropriate additional measures to keep airborne levels below the relevant exposure

limit. Where necessary, seek occupational hygiene advice.

Hygiene measures: When using, DO NOT eat, drink or smoke. Wash hands and face with soap and water before breaks.

Shower at the end of the workday. Decontaminate protective clothing before re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Appearance

Form: Liquid  
Colour: colourless to pale yellow  
Odour: characteristic

#### Chemical properties

pH (at 20 °C): 5.5 - 7.5  
Boiling point (°C): 172 - 185 °C  
Flash point (°C): 43°C  
Flammability: Flammable  
Oxidising properties: Not Applicable  
Explosive properties: Lower limit 0.6% (V), Upper limit 8% (V) (Information applies to the solvent).  
Vapour Pressure Approx. 160 Pa (Information applies to the solvent).  
Relative Density 0.89  
Solubility in water: Emulsifiable  
Log P octanol/water at 20°C: Not Applicable

### 9.2 Other Information

None

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

None

### 10.2 Chemical Stability

Stable under normal storage conditions.

### 10.3 Possibility of hazardous reactions

None known.

### 10.4 Conditions to avoid

See section 7

### 10.5 Incompatible material

Strong acids & bases, strong oxidising agents

## 10.6 Hazardous decomposition products

None if stored and handled as prescribed

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

LD <sub>50</sub> oral rat	2601 mg/kg.
LC <sub>50</sub> inhalation rat	5.3 mg/L 4 h.
LD <sub>50</sub> dermal rat	> 4000 mg/kg
Eye irritation rabbit	Risk of serious damage to eyes.
Skin irritation rabbit	Irritant
Sensitisation guinea pig	Causes skin sensitisation.
Long-term toxicity	No evidence of carcinogenic, teratogenic or mutagenic effects based on animal studies

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to fish:	LC50 (96 h)	15 mg/l, <i>Oncorhynchus mykiss</i>
Aquatic invertebrates:	EC50 (48 h)	0.365 mg/l, <i>Daphnia magna</i>
Aquatic plants:	EC50 (72 h)	8.38 mg/l (growth rate), <i>Selenastrum capricornutum</i>

### 12.2 Persistence and degradability

No information available

### 12.3 Bioaccumulative potential

No information available

### 12.4 Mobility in soil

No information available

### 12.5 Results of PBT and vPvB assessment

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

### 12.6 Other adverse effects

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Must be sent to a suitable incineration plant, observing local regulations.

This product and any un-cleaned containers must be disposed of as hazardous waste in accordance nation regulations

Contaminated packaging should be emptied as far as possible and disposed of as hazardous waste in accordance nation regulations

## 14. TRANSPORT INFORMATION

### 14.1 UN Number

UN 1993

### 14.2 UN proper shipping name

FLAMMABLE LIQUID, N.O.S. (contains PENTANOL/AMYLALCOHOL, METCONAZOLE 7%)

### 14.3 Transport hazard class(es)

### 14.4 Packing group

III

### 14.5 Environmental hazards

Marine pollutant

### 14.6 Special precautions for user

None

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

Not Applicable

## 15. REGULATORY INFORMATION

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

To avoid risks to man and the environment, comply with the instructions for use (Directive 1999/45/EC, Article 10, paragraph 1.2).

### 15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## 16. OTHER INFORMATION

### Full text of the hazard statements mentioned in Section 3 (Classification according to Regulation (EC) 1272/2008)

### Hazard Pictograms



### Hazard Statement:

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation
H361d	Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.

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