

**Section 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-ylmethyl) cyclopentanol  
 Chemical Family: Triazole  
 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,  
 Block 4,  
 Belfield Office Park,  
 Beech Hill Road,  
 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: Tel. NHS 111

**Section 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 1	H335
Aquatic Acute	Category 1	H400
Aquatic Chronic	Category 2	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.  
 H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements:**

P102 Keep out of reach of children,  
 P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 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.  
 P370+P378.1 In case of fire: Use extinguishing powder, foam or CO2 for extinction.  
 P501 Dispose of contents/container to hazardous or special waste collection point.

**Supplementary Statements:**

SP1 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).  
 SPe3 To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements  
 EUH401 To avoid risks to human health and the environment comply with the instruction for use.

**2.3 Other Hazards**

The mixture does not meet the criteria applicable to mixtures PBT or vPvB.

**Section 3. COMPOSITION / INFORMATION ON INGREDIENTS**

**3.1 Substances**

None

**3.2 Mixtures**

Chemical Name	CAS	EC	Classification (Regulation (EC) No 1272/2008)	Concentration (% w/w)
Fatty Alcohol ethoxylate	68439-46-3	-	Acute Tox 4; H302 Eye Dam 1; H318	<50
Pentanol	94624-12-1	305-536-1	Flam. Liq. 3; H226 Acute Tox 4; H332 STOT SE 3; H335	<30
Naphtha (petroleum), heavy alkylate	64741-65-7	265-067-2	Asp. Tox 1; H304 Flam. Liq. 3; H226 Aquatic Chronic 2; H413	<25

Metconazole	125116-23-6	-	Acute Tox 4; H302 Repr.2; H361d Aquatic Chronic 2; H411	<7
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**Section 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, inhale corticosteroid dose via 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. Immediately rinse mouth and then drink 250ml water. 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. 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 odema. No other known antidote.

**Section 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 hazards products of combustion. Exposure to products of combustion may be a health hazard. Do not allow run-off from firefighting 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.

**Section 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.

**Section 7. HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

Keep away from heat, use only non-sparking tools – no smoking. Store locked up in a well-ventilated place. Keep container tightly closed. Avoid release to the environment. Ground/bond container and receiving equipment. If exposed or concerned: Get medical advice/attention. Remove/Take off all contaminated clothing immediately Do not breathe dust/gas/mist/vapors, use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. If on skin wash with plenty of water.

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

Segregate from foods and animal feeds.

Further information on storage conditions:  
Protect from temperatures below 0°C.  
Protect from temperatures above 30°C.

Keep away from heat. Protect from direct sunlight.  
The product crystallizes below the limit temperature.  
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.

**Section 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.

## **Section 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) (Applies to the solvent).  
Vapour Pressure Approx. 160 Pa (Applies to the solvent).  
Relative Density 0.89  
Solubility in water: Emulsifiable  
Self-ignition: 289 °C  
Dynamic viscosity 5.3 mPas (40 °C)  
Kinetic viscosity 6 mm<sup>2</sup>/s (40 °C)  
Log P octanol/water at 20°C: Not Applicable

### **9.2 Other Information**

None.

## **Section 10. STABILITY AND REACTIVITY**

### **10.1 Reactivity**

Not reactive if stored and handled as indicated.

### **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.

## **Section 11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

Aspiration hazard.

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, reprotoxic, teratogenic or mutagenic effects based on animal studies. Possible developmental toxicity seen in animal studies and adaptive effects after repeated exposure.

**Section 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.

**Section 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.

**Section 14. TRANSPORT INFORMATION**

**14.1 UN Number**

UN 1993

**14.2 UN proper shipping name**

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

**14.3 Transport hazard class(es)**

3

**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.

**Section 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.

**Section 16. OTHER INFORMATION**

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

**Hazard Statement:**

H226	Flammable liquid and vapor.
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.
H413	May cause long lasting harmful effects to aquatic life.

The information presented in this document is accurate to the best of our knowledge at the date of its publication. However, the information given is designed only as a guide for the methods of handling, storage, use, transportation and disposal of the product and is not considered a warranty or quality specification. Life Scientific Limited cannot be held responsible for any loss or damage resulting from the handling, storage, use or disposal of the product. The information contained in this document relates only to this specific product.

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