

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

1.1 Product Identifier

Product Name **ZONOR®**

Product Code: 091-01

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

Product Use: 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
Email: info@lifescientific.com
Web: www.lifescientific.com

1.4 Emergency contact information

In case of Emergency: Tel. NHS 111

1.5 UFI code K7H9-0MWN-T20Q-YHRG

Section 2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) No. 1272/2008

Acute Tox	Category 4	H302
Eye Dam	Category 1	H318
Acute Tox	Category 4	H332
Repro Tox	Category 2	H361d
Acute Aquatic Tox	Category 1	H400
Chronic Aquatic Tox	Category 1	H410

2.2 Label Elements

Labelling according to Regulation (EU) 1272/2008

Hazard components which must be listed on the label:

- Tebuconazole
- N,N-Dimethyl decanamide

Hazard Pictograms:



Hazard Phrases:

H302 Harmful if swallowed.
H318 Causes serious eye damage.
H332 Harmful by inhalation.
H361d Suspected of damaging the unborn child.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Phrases:

P102 Keep out of reach of children.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.
P501 Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste.

Do not contaminate water with the product or its container. (Do not clean application equipment near surface water/avoid contamination via drains from farmyard and roads).

Supplementary Statements:

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

2.3 Other Hazards

None.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

No substances fulfil the criteria set out in Annex II, Part A of the REACH Regulation (EC) No 1907/2006.

3.2 Mixtures

Chemical Name	CAS	EC	Classification (Regulation (EC) No 1272/2008)	Concentration (% w/w)
Tebuconazole	107534-96-3	403-604-2	Acute Tox Oral, Cat 4; H302 Repro Tox, Cat 2; H361 Chronic Aquatic Tox, Cat 2; H411	25.9
N,N-Dimethyl decanamide	14433-76-2	238-405-1	Skin Irrit 2, H315 Eye Irrit 2, H319 STOT SE, H335 Aquatic Chronic 3, H412	>20

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.

Inhalation: If inhaled, remove victim to fresh air, keep them warm. Consult a physician or Poison Control Centre immediately.

Ingestion: DO NOT induce vomiting unless directed to do so by a Poison Control Centre. 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, if possible polyethyleneglycol 400 and water. If skin irritation persists, consult a physician. Wash contaminated clothing before re-use.

Eye contact: Remove contact lenses if present. Rinse immediately with plenty of water, with the eyelid open for at least 15 minutes. Obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No known symptoms

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physicians: Treat symptomatically. Activated charcoal and sodium sulphate is always advisable. There is no specific antidote. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours

Section 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Use water spray, dry chemical, alcohol-resistant foam or carbon dioxide. Avoid using a solid water stream as it may cause the fire to scatter or spread.

5.2 Special hazards arising from the substance or mixture

This product contains combustible organic components (e.g.; HCl, CO, NOx).

5.3 Advice for firefighters

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

Section 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use appropriate personal protective equipment (see section 8). For safe handling and storage, see section 7.

6.2 Environmental precautions

Prevent entry into sewers and public waters. In the event of a major spillage, contact an expert from the UK Environmental Agency (03708 506 506) immediately.

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.

Section 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure adequate ventilation when using. No special technical protective measures required. No special handling advice required. Avoid contact with skin and eyes. Remove and wash or destroy clothes which come in contact with the product. Wash hands after using the product / before eating or drinking.

7.2 Conditions for safe storage, including any incompatibilities

No special storage conditions required. Keep containers tightly closed in a cool, dry and well-ventilated area. Keep separate from food, drink and animal feed. Protect from direct sunlight and frost.

7.3 Specific end use(s)

None.

Section 8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

Component	Control parameters	Source
Tebuconazole	0.2 mg/m ³ (TWA)	Supplier

8.2 Exposure controls

Respiratory protection:	Respiratory protection is not required under anticipated circumstances of exposure. Respiratory protection should only be used to control residual risk of short duration activities.
Skin protection:	Wear suitable chemical-resistant clothing (category 3 type 6 suit). Wash body thoroughly with soap and water after removing protective clothing. Decontaminate protective clothing before re-use.
Hand protection:	Use nitrile rubber gloves (class 6, EN 374). Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. Gloves should be changed and discarded 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, field of use = 5.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Form:	Liquid, clear to slightly turbid
Colour:	Light yellow
Odour:	Aromatic

Chemical properties

pH (@ 23 °C at 1%):	5.0 – 8.0
Flash point:	> 172 °C
Ignition temperature:	345 °C
Density (g/cm ³):	0.97 @ 20 °C
Solubility in water:	emulsifiable
Partition coefficient (n-octanol/water) :	Tebuconazole - Log Pow : 3.7 N,N-Dimethyldecanamide – Log Pow : 2.46
Viscosity (kinematic @ 20 °C):	34.1 mm ² /s
Surface tension (@ 20 °C):	28.6 mN/m

9.2 Other Information

None.

Section 10. STABILITY AND REACTIVITY

10.1 Reactivity

Thermal decomposition 350 °C. Exothermic decomposition at rate of 3 K/min.

10.2 Chemical Stability

Stable under normal storage conditions.

10.3 Possibility of hazardous reactions

No data is available

10.4 Conditions to avoid

Heat and direct sunlight.

10.5 Incompatible material

Store only in the original container

10.6 Hazardous decomposition products

Stable under normal conditions.

Section 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

LD ₅₀ oral rat	>300 - <2000 mg/kg.
LD ₅₀ dermal rat	> 40000 mg/kg.
LC ₅₀ inhalation rat	5 mg/L/4 h.
Eye irritation rabbit	Serious risk.
Skin irritation rabbit	No irritation.
Sensitisation guinea pig	Non-sensitizing (OECD 406).
Repeated dose toxicity	No evidence of specific target organ toxicity in animal studies.
Mutagenicity	No evidence of genotoxicity or mutagenic toxicity in animal studies.
Carcinogenicity	N,N-dimethyldecanamide is not considered to be carcinogenic. Tebuconazole caused tumours in mice livers, at high doses.
Reproductive toxicity	N,N-dimethyldecanamide is not considered to be a reproductive toxin. Tebuconazole caused reproduction toxicity, in a two-generation study in rats. The reproductive toxicity is related only to parental toxicity.
Developmental toxicity	N,N-dimethyldecanamide is not considered to be a reproductive toxin. Tebuconazole caused developmental toxicity, at high dosage levels, an increased incidence of post implantation losses and an increased incidence of non-specific malformations.

Section 12. ECOLOGICAL INFORMATION

12.1 Toxicity

LC50 Rainbow trout (96 h)	: 9.28 mg/L
EC50 Daphnia magna (48 h)	: 7.3 mg/L
NOEC Daphnia magna (21 d)	: 0.010 mg/L
EC50 Green algae (72 h)	: 3.51 mg/L
EC50 Lemna gibba (14 d)	: 0.237 mg/L

12.2 Persistence and degradability

Tebuconazole is not rapidly biodegradable (Koc = 769).
N,N-dimethyldecanamide is rapidly biodegradable.

12.3 Bioaccumulative potential

Tebuconazole (BCF 35 – 59) and N,N-dimethyldecanamide do not bioaccumulate.

12.4 Mobility in soil

Tebuconazole and N,N-dimethyldecanamide have slight mobility in soil.

12.5 Results of PBT and vPvB assessment

This mixture contains no substance considered to be neither persistent, bioaccumulating nor toxic (PBT)

12.6 Other adverse effects

None.

Section 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal procedures: In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK)

Contaminated packaging: Packaging should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times. Add washings to sprayer at time of filling. Dispose of empty and cleaned packaging safely. Larger containers should not be rinsed or re-used for any other purpose. Return large containers to supplier. Follow advice on product label and/or leaflet.

Section 14. TRANSPORT INFORMATION

14.1 UN Number

3082.

14.2 UN proper shipping name

Environmentally hazardous substance, liquid, N.O.S., (Tebuconazole).

14.3 Transport hazard class(es)

9.

14.4 Packing group

III.

14.5 Environmental hazards

YES

14.6 Special precautions for user

None.

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

No information available

Section 15. REGULATORY INFORMATION

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

Note: The preparation is classified as dangerous in accordance with Directive 1999/45/EC.

15.2 Chemical safety assessment

None

Section 16. OTHER INFORMATION

Full text of the classifications (hazard statements);

H302	Harmful if swallowed.
H315	Causes skin irritation
H318	Causes serious eye damage.
H319	Causes serious eye irritation
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H410	Very toxic to aquatic life with long lasting effects.
H411	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects

The information presented in this MSDS is correct to the best of our knowledge, information and belief at the date of its publication.

However, the information given is designed only as a guidance for methods of handling, storage, use, transportation and disposal of the product, and is not considered to be a warranty or quality specification. Life Scientific Ltd shall not be held liable for any loss or damage resulting from the handling, storage, use or disposal of the product. The information contained in this MSDS relates only to this specific product and may not be valid if this product is used in combination with any other products.

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