

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

**1.1 Product Identifier**

Product Name: ZONOR®  
Product Code: 091-01  
UFI Code: K7H9-0MWN-T20Q-YHRG

**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](mailto:info@lifescientific.com)  
Web: [www.lifescientific.com](http://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 (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

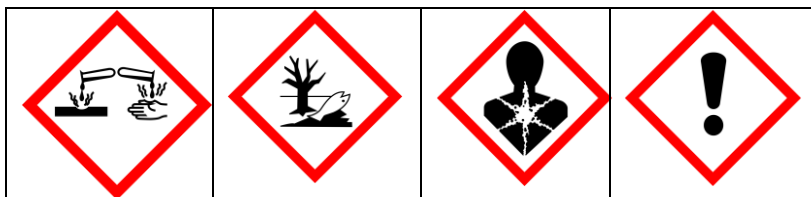
**2.2 Label Elements**

Labelling according to Regulation (EU) 1272/2008

Hazard components which must be listed on the label:

- Tebuconazole
- N,N-Dimethyl decanamide

Hazard Pictograms:



Signal Word:

Danger

**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.

**Other Phrases:**

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.  
SP 1 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).

**2.3 Other Hazards**

Substance does/does not meet the criteria for vPvB according to regulation (EC) No 1907/2006, Annex III.

**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 <sup>3</sup> (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 <sup>3</sup> ):	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 <sup>2</sup> /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 <sub>50</sub> oral rat	>300 - <2000 mg/kg.
LD <sub>50</sub> dermal rat	> 40000 mg/kg.
LC <sub>50</sub> 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.

**11.2 Information on other hazards  
Endocrine disrupting properties**

Product:

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

**Section 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**

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

**12.6 Endocrine disrupting properties**

Product:

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

**12.7 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**

Transport the product in accordance with the provisions of ADR for road, RID for rail, IMDG for the sea, and ICAO / IATA for air transport

**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 known.

**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 list of relevant hazard and precautionary statements that were not given in full in sections 2 and 3.

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

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