NEMguard DE Granules

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier
   Trade Name           NEMguard DE
   Product Code         NEM17DE36

1.2 Relevant identified uses of the substance or mixture and uses advised against use
   Use of substance/ Mixture       Nematicide

1.3 Details of the supplier of the safety data sheet

   Approval Holder
   Ecospray Limited
   Grange Farm, Hilborough
   Thetford, IP26 5BT
   Norfolk, UK

   Marketing Company
   Certis
   Suite 5, 1 Riverside
   Granta Park
   Great Abington
   Cambridge
   CB21 6AD
   Telephone: 0845 373 0305
   Fax: +44 (0)1223 891210
   Email: certis@certiseurope.co.uk

1.4 Emergency Telephone Number

   Certis carechem 24 hrs multilingual 24 hrs emergency no. +44 (0) 870 190 6777.
   For advice on medical emergencies, fires, spillages or chemical hazards only- Phone 0870 190 6777.
   For further advice for medical professional- The national poisons information service- Phone 0870 600 6266 (UK only) or 0035 3137 9964/ 379966 (Dublin).
SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification in accordance with Regulation (EC) No 1272/2008
   No classification proposed

2.2 Label elements

   Pictogram
   ![Pictogram Image]

   Signal word
   WARNING

   Hazard Statement(s)
   No hazard
   EUH401- To avoid risks to human health and the environment, comply with the instructions for use

   Precautionary statements
   P102- Keep out of reach of children
   P280- Wear protective gloves/ protective clothing/ eye protection/ face protection
   P302 + 352- If on skin wash with plenty of soap and water
   P332 + 313- If irritation occurs, get medical advice
   P362 + 364- Take off contaminated clothing and wash it before re-use.
   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.

2.3 Other hazards
   No other hazards known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
   Not applicable

3.2 Mixtures
   Granular formulation containing 45g/kg Garlic Extract on an inert base

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Classification Regulation (EC) No 1272/2008</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garlic concentrate</td>
<td>8000-78-0</td>
<td>232-371-1</td>
<td>Skin irritant (Cat. 2) H315</td>
<td>45%</td>
</tr>
</tbody>
</table>
SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation
Move to fresh air. Keep patient warm and at rest.

Skin contact
Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.

Eye contact
Remove contact lens and rinse eyes immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops and persists.

Ingestion
DO NOT induce vomiting unless directed to do so by a physician or poison control centre. Rinse out mouth and give water in small sips to drink. Keep patient warm and at rest.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
Slight irritation

4.3 Indication of any immediate medical attention and special treatment needed

Wash the exposed skin with water and soap. Drink plenty of water.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable
Use water spray, dry chemical or carbon dioxide.

Unsuitable
High volume water jet (contamination risk)

5.2 Special hazards arising from the substance or mixture

Dangerous gases can/are evolved in the event of fire

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Further information
Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain firefighting water by diking area with sand or earth.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions
Avoid contact with spilled product or contaminated surfaces. Avoid dust formation. When dealing with a spillage do not eat, drink or smoke.

Environmental precautions
Do not allow to get into surface water, drains and ground water. If spillage enters drains leading to sewage works inform local water company immediately. If spillage enters rivers or water course inform the water.

6.2 Methods and materials for containment and cleaning up
Methods for cleaning up
Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean floors and contaminated objects with plenty of water.

Additional advice
Check also for any local site procedures

6.3 Reference to other sections
Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Advice on safe handling
No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Avoid dust formation. Ensure adequate ventilation

Advice on protection against fire and explosion
No special precautions required.

Hygiene measures
When using, do not eat, drink or smoke. Wash hands immediately after work, if necessary take a shower

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers
Store in original container and out of the reach of children, preferably in a locked storage area. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight.

Advice on common storage
Keep away from food, drink and animal feeding stuffs.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
No control parameters known

8.2 Exposure controls
Engineering measures
Ensure adequate ventilation, especially in confined areas

Respiratory protection
Wear respirator with a particle filter mask (protection factor 4) conforming to European norm EN149 (FFP1) or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer’s instructions regarding wearing and maintenance.

Hand protection
Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness of 0.4 mm). Wash when contaminated and dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Eye protection
Wear goggles (conforming to EN166, Field of Use= 5 or equivalent).

Skin and body protection
Wear standard coveralls and Category 3 Type 5 suit.

If there is a risk of significant exposure, consider a
higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical
Appearance: Dark Brown Granule
Odour: Garlic
Odour threshold: Mild
pH: 5.98 (CIPAC MT 75.3)
Melting point/Freezing point: No data
Initial boiling point and boiling range: Not applicable
Flash point: Non-flammable (EEC A10)
Evaporation rate: Not applicable
Flammability (Solid, gas): Non-flammable (EEC A10)
Upper/lower flammability or explosive limits: Non-flammable
Vapour pressure: Not applicable
Vapour density: Not applicable
Relative density: 0.78g/cm3 (CIPAC MT186)
Solubility(ies): Insoluble
Partition coefficient: n-octanol/water: Not applicable
Auto-ignition temperature: Does not ignite
Decomposition temperature: Not available
Viscosity: Not applicable
Explosive properties: Not explosive
Oxidising properties: Does not ignite (EEC A17)

9.2 Other information
Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
Stable under normal conditions.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No hazardous reactions when stored and handled according to prescribed instructions.

10.4 Conditions to avoid
Extremes of temperature and direct sunlight.

10.5 Incompatible materials
Store only in the original container.

10.6 Hazardous decomposition products
No decomposition products expected under normal conditions of use.
SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Skin corrosion/ Irritation</td>
<td>No skin irritation</td>
</tr>
<tr>
<td>Eye irritation</td>
<td>No eye irritation (Rabbit)</td>
</tr>
<tr>
<td>Sensitisation</td>
<td>Non-sensitising (Rabbit)</td>
</tr>
<tr>
<td>Repeated dose toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Mutagenicity assessment</td>
<td>Garlic extract is not considered mutagenic</td>
</tr>
<tr>
<td>Carcinogenicity assessment</td>
<td>Garlic extract is not considered carcinogenic</td>
</tr>
<tr>
<td>Toxicity to reproductive assessment</td>
<td>Garlic extract is not considered a reproductive toxicant at non-maternally toxic dose level</td>
</tr>
<tr>
<td>Developmental toxicity assessment</td>
<td>Garlic extract is not considered a developmental toxicant</td>
</tr>
<tr>
<td>STOT- single exposure</td>
<td>Garlic extract is not considered as toxic to specific organs</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>Garlic extract is not considered as toxic to specific organs</td>
</tr>
<tr>
<td>Further information</td>
<td>The above values are calculated in accordance with Regulation (EC) 1272/2008.</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to fish</td>
<td>EC₅₀ (Carp) 19.64mg a.s/l, Exposure time: 96 h</td>
</tr>
<tr>
<td>Toxicity to aquatic invertebrates</td>
<td>EC₅₀ (Daphnia) 9.3mg a.s/l, Exposure time: 48 h</td>
</tr>
<tr>
<td>Toxicity to aquatic plants</td>
<td>EC₅₀ (Algae) 5.7.8mg a.s/l, Exposure time: 72 h</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

The single components are biologically degradable

12.3 Bio-accumulative potential

Does not bio-accumulate

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance is not considered to be persistent, bio accumulative and toxic (PBT). This substance is not considered to be very persistent and very bio accumulative (vPvB).

12.6 Other adverse effects

Additional ecological information

No other effects to be mentioned. The above values are calculated in accordance with Regulation (EC) 1272/2008.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

<table>
<thead>
<tr>
<th>Component</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Do not empty into drains. Disposed of unused product according to national regulation.</td>
</tr>
<tr>
<td>Contaminated packaging</td>
<td>Do not re-use empty containers.</td>
</tr>
</tbody>
</table>

SECTION 14: TRANSPORT INFORMATION

14.1 According to ADN/ADR/UK 'Carriage' Regulations/RID/IMDG/IATA not classified as dangerous goods.

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please
refer to the manufacturer for further information.

14.6 **Special precautions for user**
See sections 6 to 8 of this Safety Data Sheet.

14.7 **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
Not applicable.

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### SECTION 15: REGULATORY INFORMATION

This safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008

15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**
This material may be subject to some or all of the following regulations (and any subsequent amendments). Users must ensure that any uses and restrictions as indicated on the label and/or leaflet are followed.

**Transport**

**Supply and Use**
Chemical (Hazard Information and Packaging for Supply) (Northern Ireland) Regulations 2009.
Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No 2677)
EH40 Occupational Exposure Limits - Table 1 List of approved workplace exposure limits Control of Pesticide Regulations 1986.

**Waste Treatment**
Environmental Protection Act 1990, Part II.
Environmental Protection (Duty of Care) Regulations 1991.
The Waste Management Licensing Regulations 1994 (as amended).
Hazardous Waste Regulations 2005 (Replacing Special Waste Regulations 1996 as amended)
Landfill Directive.
Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94).
Anti-Pollution Works Regulations 1999.

15.2 **Chemical Safety Assessment**
A chemical safety assessment is not required

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### SECTION 16: OTHER INFORMATION

No responsibility can be accepted for Health and Safety requirements of the place of work. No responsibility can be accepted for any breach of pesticide regulations by users. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.