

Revision Date: January 2018

NEMguard Liquid

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

1.1 Product identifier

Trade Name	NEMguard Liquid
Product Code	0021NGL24

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

Use of substance/ Mixture	Nematicide
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1.3 Details of the supplier of the safety data sheet

Supplier

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

Telephone: +44 (0) 1760756100

Fax: +44 (0) 1760756313

Email: enquiries@ecospray.com

1.4 Emergency Telephone Number

01760756100 (UK only)

SECTION 2: HAZARDS IDENTIFICATION

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

Skin sensitisation, cat 1B, H317

2.2 Label elements

Pictogram



Signal word

WARNING

Hazard Statement(s)

H317- May cause an allergic skin reaction.
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
P302 + 352- If on skin wash with plenty of soap and water
P332 + 313- If irritation occurs, get medical advice
P280- Wear protective gloves/ protective clothing/ eye protection/ face protection
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
No other hazards known

2.3 Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

Food grade garlic concentrate

Chemical Name	CAS-No.	EC -No.	Classification Regulation (EC) No 1272/2008	Concentration
Garlic concentrate	8000-78-0	232-371-1	Skin Sens. (Cat. 1B) H317	100%

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 fire-fighting 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. 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 vapour filter mask (class 2) conforming to European norm EN140 and EN14387 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 viscous liquid
Odour	Garlic
Odour threshold	Strong
pH	5.5- 5.9 (CIPAC MT 75.3)
Melting point/Freezing point	Not applicable
Initial boiling point and boiling range	103°C
Flash point	Non-flammable (EEC A9)
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	1.28 (EEC A3)
Solubility(ies)	Soluble in water
Partition coefficient: n-octanol/water	-1.49 (20°C)
Auto-ignition temperature	Does not ignite
Decomposition temperature	Not available
Viscosity	637-778 mPa.s (OECD 114)
Explosive properties	Not explosive
Oxidising properties	Does not ignite

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

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

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	EC ₅₀ (Carp) 19.64mg/l, Exposure time: 96 h
Toxicity to aquatic invertebrates	EC ₅₀ (Daphnia) 9.3mg/l Exposure time: 48 h
Toxicity to aquatic plants	E _r C ₅₀ (Algae) 57.8 mg/l, Exposure time: 72 h

12.2 Persistence and degradability

Not persistent and degradable quickly due to short half life

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

Product	Do not empty into drains. Disposed of unused product according to national regulation.
Contaminated packaging	Do not re-use empty containers.

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.

SECTION 15: REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
This safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008
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

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No 1348).

Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 (SI 1997 No 2367).

Air Navigation Dangerous Goods Regulations 2002 (SI 2002 No 2786).

Supply and Use

Chemical (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716).

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.

Dangerous Substances and Explosive Atmospheres Regulations 2002.

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).

Water Resources Act 1991.

Anti-Pollution Works Regulations 1999.

15.2 Chemical Safety Assessment

A chemical safety assessment is not required

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.