

Section 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
1.1 Product Identifier

Product Name: KARADEG
 Product Description: Emulsifiable Concentrate (EC)

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	LIFE SCIENTIFIC FRANCE 11-13 rue des Aulnes, 69760 Limonest, France
Telephone:	+353 (0) 1 2832024	N° vert : 0 800 912 759 (freecall from a landline)
Web:	www.lifescientific.com	
Email:	info@lifescientific.com	

1.4 Emergency contact information

In case of Emergency : Antipoison Centre Paris: 0140054848
 See <http://www.centres-antipoison.net/> for emergency numbers associated with other provinces.

Section 2 : HAZARD IDENTIFICATION
2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

Eye irritation	Category 2	H319
STOT SE	Category 3	H335
Aquatic Acute	Category 1	H400
Aquatic Chronic	Category 1	H410

2.2. Label elements
Classification according to Regulation (EC) No. 1272/2008
Hazard pictograms:

Contains N,N-Dimethyldecane-1-amide. May produce an allergic reaction.
 Contains Prothioconazole.


Warning statement:

Attention

Hazard statements:

H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

H410 Very toxic to aquatic life with long lasting effects.

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

Precautionary statement:

P102 Keep out of reach of children
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell
P337+P313 If eye irritation persists: Get medical advice/attention.
P501 Dispose of contents / container to an approved waste disposal facility.

SP1 Do not pollute the water with the product or its packaging. Do not clean application equipment near surface water. Avoid contamination through drainage systems from farm yards or roads.
SPe3 To protect aquatic organisms, respect an untreated area of 5 meters in relation to water points. In case of possible runoff on the treated plot, provide an untreated vegetated device with a width of 5 meters in relation to the water points.
SPe3 To protect non-target plants, respect an untreated zone of 5 meters in relation to the adjacent non-cultivated area.

2.3. Other hazards

No other known dangers.

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)
Prothioconazole	178928-70-6	605-841-2	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	25
N,N-Dimethyldecanamide Or N,N-dimethyl 9-decanamide	14433-76-2 Or 1356964-77-6	238-405-1 Or 806-919-0	Acute Tox. 4, H302 Skin irritation 2, H315 Eye irritation 2, H319 STOT - SE 3, H335 Aquatic Chronic 3, H412	> 20

For explanation of abbreviations see section 16.

Section 4 : FIRST AID MEASURES
4.1 Description of first aid measures

General information: In case of complaints or symptoms, avoid further exposure. Treat the symptoms. In case of cough and shortness of breath or feeling unwell, seek medical advice showing the package, label or safety data sheet.

In case of inhalation: Remove victim to fresh air. If breathing is difficult, give oxygen. If breathing is irregular or stopped, give artificial respiration. Consult a poison control center or doctor immediately.

In case of ingestion: DO NOT induce vomiting unless prompted by a poison control center. If consciousness is total, drink plenty of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Skin contact: Remove contaminated clothing immediately. Wash skin immediately with plenty of 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, keeping the eyelids open for at least 15 minutes. Get medical attention if irritation persists.

4.2. Most important symptoms and effects, both acute and delayed

No known or expected symptoms.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. If ingestion of large quantity for less than two hours, proceed to a stomach wash. In addition it is advisable to administer medicinal charcoal and sulphate of soda. There is no specific antidote.

Section 5 : FIREFIGHTING MEASURES

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon oxides (CO, CO₂)
Nitrogen oxides
Hydrochloric acid

5.3. Advice for Firefighters

Wear self-contained breathing apparatus. Fight the fire from a safe distance and a protected area. Do not allow contaminated extinguishing water to enter drains or waterways. Cool closed containers exposed to fire with water spray.

Section 6 : ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Contain and collect leaks with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in drums for disposal. Prevent entry into sewers or streams. In case of entry into water or sewer system, notify the appropriate authorities.

6.3 Methods and materials for containment and cleaning up

Collect by mechanical means. Clean and neutralize the application area, tools and equipment with bleach, soap and water. Absorb the wash water and add it to the waste collected. Waste must be classified and labelled before recycling or disposal.

6.4 Reference to other sections

No data is available.

Section 7 : HANDLING AND STORAGE

7.1 Precautions for safe handling

No special protection measures required. Work in a well ventilated place. Avoid contact with skin and eyes. Wash hands after handling. When using, do not eat, drink or smoke. For personal protection, see section 8.

7.2 Conditions for safe storage, including any incompatibilities

Storage: Protect from strong heat and direct sunlight. Keep packaging in a well-ventilated place.
 Packaging: Always keep in packaging of the same material as the original.

7.3 Specific end use(s)

No data is available.

Section 8 : EXPOSURE CONTROL/PERSONAL PROTECTION
8.1 Control parameters:

Component	CAS no	Exposure limits	Source
Prothioconazole	178928-70-6	1.4 mg/m ³	Supplier

8.2. Exposure controls

Respiratory Protection: Protection provided by air purifying respirators is limited. A combination of gas, vapor and respirator particles may be required before effective technical measures are put in place. Use self-contained breathing apparatus in case of an emergency spill, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

Skin Protection: Wear appropriate chemical resistant clothing based on potential for skin contact. Wash with the water and soap after removing the protective clothing. Decontaminate protective clothing before reuse. Wear impermeable protective clothing, if applicable.

Hand protection: Use nitrile rubber or other suitable chemical resistant gloves. Gloves should have a minimum breakthrough time that is appropriate for the duration of the exposure. Gloves should be changed when suspected breakthroughs.

Eye Protection: Follow all specific eye protection site policies. Eye / face protection should be certified to EN 166.

Technical measures: Withholding and / or separation are the most reliable technical protection measures if the exposure can not be eliminated. If mists or volatile vapors are generated, use local air controls. Evaluate exposure and use additional appropriate measures to maintain airborne concentrations under the relevant exposure. If necessary, ask for advice on occupational hygiene.

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 working day. Decontaminate protective clothing before reuse.

Section 9 : PHYSICAL AND CHEMICAL PROPERTIES
9.1. Information on basic physical and chemical properties
General information :

Physical state:	Liquid
Colour:	Tan
Odour:	Aromatic
pH (1% à 23° C):	5.0 - 6.0
Melting point (° C) :	Not determined
Boiling point (° C):	Not determined
Flash point (° C):	152°C
Flammability Isolid, gaseous):	No data available
Ignition temperature (° C):	340
Decomposition temperature (° C):	Not determined
Auto-ignition:	The product does not ignite spontaneously
Danger of explosion:	The product is not explosive
Explosion limits (lower):	No data available
Explosion limits (upper):	No data available
Vapour pressure:	Not determined
Density:	ca. 1,00 g/cm ³ at 20 °C
Density of vapour:	Not determined
Solubility in water:	Not determined
Log P octanol / water (at 20 ° C):	Not determined

Viscosity (Dynamic):	Not determined
Viscosity (Kinematic):	Not determined
Surface tension:	29,9 mN/m at 20 °C

9.2. Other information

No data is available.

Section 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data is available.

10.2. Chemical Stability

This mixture is stable at the handling and storage conditions recommended in Section 7.

10.3. Possibility of hazardous reactions

No dangerous reaction known.

10.4. Conditions to avoid

No data is available.

10.5. Incompatible material

No data is available.

10.6. Hazardous decomposition products

There are no decomposition products in normal use.

Section 11 : TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Oral Toxicity LD50 Rat:	>2500 mg/kg
Acute Dermal Toxicity LD50 Rat:	>4000 mg/kg
Acute Inhalation Toxicity LC50 Rat:	> 5 mg/l/4 h (maximum concentration reached. Product tested as a respirable aerosol)

Eye irritation: Irritating to the eyes. (Rabbit)
The test was performed with a similar formulation.

Skin irritation: Not irritating to the skin. (Rabbit)
The test was performed with a similar formulation.

Respiratory or skin sensitization: Not sensitizing. (guinea pig)
OECD Guideline 406, Buehler Test
The test was performed with a similar formulation.

Germ cell mutagenicity: Not classified (Based on available data, the classification criteria are not met)
Prothioconazole - No mutagenic effects reported

Carcinogenicity: Not classified (Based on available data, the classification criteria are not met)
Prothioconazole - No carcinogenic effects have been observed.

Reproductive toxicity: Not classified (Based on available data, the classification criteria are not met)
Prothioconazole - Fertility and developmental toxicity tests revealed no effects on reproduction.

Aspiration hazard: Not classified (Based on available data, the classification criteria are not met)

Specific target organ toxicity - single exposure (STOT-SE):
Unclassified (Based on available data, the classification criteria are not met)

Specific target organ toxicity - repeated exposure (STOT-RE):
Unclassified (Based on available data, the classification criteria are not met)

Section 12 : ECOLOGICAL INFORMATION
12.1. Toxicity

LC ₅₀ Rainbow trout (96 h):	4.02 mg/L
EC ₅₀ Daphnia magna (48 h):	2.9 mg/L
LC ₅₀ <i>Pseudokirchneriella subcapitata</i> :	12.7 mg/L
E _b C ₅₀ <i>Skeletonema costatum</i> (72 h):	0.046 mg/L

The values mentioned relate to the active ingredient prothioconazole

12.2. Persistence and degradability

Prothioconazole:	Not readily biogradable
N,N-Dimethyldecanamide:	Readily biogadable
Prothioconazole Koc:	1765

12.3. Bioaccumulative potential

Prothioconazole:	Bioconcentration Factor (BCF) 19 Does not show bioaccumulation.
N, N-Dimethyldecanamide:	Does not show bioaccumulation

12.4. Mobility in soil

Prothioconazole:	Moderate mobility in soil
N,N-Dimethyldecanamide:	Moderate mobility in soil

12.5. Results of PBT and vPvB assessment

The mixture does not meet the criteria for PBT or vPvB mixtures according to Annex XIII of REACH Regulation (EC) No 1907/2006.

12.6. Other adverse effects

No data is available.

Section 13 : DISPOSAL CONSIDERATIONS
13.1. Waste treatment methods

Waste disposal procedures: Do not contaminate ponds, waterways or ditches with the product or container used. Do not dispose of garbage in sewers. Where possible, recycling is preferable to disposal or incineration. If recycling is not possible, dispose of in accordance with local regulations. Eliminate empty packaging via collections organized by partners of the ADIVALOR sector.

Contaminated packaging: Empty leftovers. Triple rinse containers. Do not reuse empty containers. Empty containers should be taken for local recycling or waste disposal.

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 shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PROTHIOCONAZOLE SOLUTION)

14.3. Transport hazard class

9

14.4. Packing group

III

14.5. Environmental hazards

Dangerous for the environment

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

No bulk transport in accordance with the IBC Code.

Section 15 : REGULATORY INFORMATION

15.1. Safety, health and environmental regulation/legislation specific for the substance or mixture in Section 3.

To avoid risks to man and the environment, comply with the instructions for use.

The mixture does not contain "substances of very high concern" (SVHC) published by the European Chemicals Agency (ECHA) under Article 57 of REACH <http://echa.europa.eu/web/guest/candidate-list-table>

15.2 Chemical safety assessment

No data is available

Section 16 : OTHER INFORMATION

Full text hazard statements mentioned in section 2 and 3.:

H302	Harmful if swallowed
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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