

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

1.1 Product Identifier

Product Name: OPTIL®
Product Code: 078-01

Other means of identification

Unique Formula Identifier (UFI) A5GP 97NN J20W GCAD

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

Product Use: Insecticide

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

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1.4 Emergency contact information

In case of Emergency: Tel. NPIC +353 (01) 809 2166 (8.00 a.m. to 10.00 p.m. - Public)
Tel. NPIC +353 (01) 809 2566 (Healthcare Professionals)

Section 2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

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

Aquatic Acute	Category 1	H400
Aquatic Chronic	Category 1	H410

2.2 Label Elements

Labelling according to Regulation (EU) 1272/2008

Hazard Pictograms:



Signal Word:

Warning

Hazard Phrases:

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Phrases:

P102	Keep out of reach of children.
P103	Read the label before use.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/ eye protection/face protection.

P391 Collect spillage.
P501 Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty clean 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).
Spe3 To protect aquatic organisms respect an unsprayed buffer zone of 10m to surface water bodies when applying to beetroot, carrots, celeriac, horseradish, Jerusalem artichoke, maize, parsnips, radish, root parsley, salsify, swede, sweetcorn and turnip.
Spe3 To protect aquatic organisms respect an unsprayed buffer zone of 20m to surface water bodies when applying to apples, broccoli, cabbage, cauliflower, pears and plums.

2.3 Other Hazards

This mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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)
3-Bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide Chlorantraniliprole	500008-45-7	-	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	18.35% w/w

Section 4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.
Ingestion: Inducing vomiting is not recommended. Rinse mouth and drink water or milk. If vomiting does occur, rinse mouth and drink fluids again. Consult a physician immediately.
Skin contact: Immediately remove contaminated clothing and footwear. Flush skin with water. Wash with water and soap. See physician if any symptom develops.
Eye contact: Immediately rinse eyes with much water or eyewash solution, occasionally opening eyelids, until no evidence of chemical remains. Remove contact lenses after a few minutes and rinse again. Get medical attention if irritation persists.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: None known.

4.3 Indication of any immediate medical attention and special treatment needed

Immediate medical attention is required in case of ingestion.

Notes to physicians: There is no specific antidote available. Gastric lavage and/or administration of activated charcoal can be considered.

Section 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Avoid heavy hose streams.

5.2 Special hazards arising from the substance or mixture

The essential breakdown products are volatile, toxic, irritant and inflammable compounds such as nitrogen oxides, hydrogen chloride, hydrogen bromide, carbon monoxide, carbon dioxide and various chlorinated and brominated organic compounds.

5.3 Advice for firefighters

Use water spray to keep fire-exposed containers cool. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water runoff. Firemen should wear self-contained breathing apparatus and protective clothing.

Section 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

It is recommended to have a predetermined plan for the handling of spills. Empty, closable vessels for the collection of spills should be available.

In case of large spill (involving 10 tonnes of the product or more):

1. use personal protection equipment; see section 8
2. call emergency telephone no.; see section 1
3. alert authorities.

Observe all safety precautions when cleaning up spills. Use personal protection equipment. Depending on the magnitude of the spill this may mean wearing respirator, face mask or eye protection, chemical resistant clothing, gloves and boots. Stop the source of the spill immediately if safe to do so. Avoid and reduce formation of vapour or mist as much as possible.

6.2 Environmental precautions

Contain the spill to prevent any further contamination of surface, soil or water. Wash waters must be prevented from entering surface water drains. Uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.

6.3 Methods and materials for containment and cleaning up

It is recommended to consider possibilities to prevent damaging effects of spills, such as bunding or capping. See GHS (Annex 4, Section 6).

If appropriate, surface water drains should be covered. Minor spills on the floor or other impervious surface should be absorbed onto an inert absorbent such as universal binder, Fuller's earth, bentonite or other absorbent clay. Transfer to suitable containers. Clean area with strong industrial detergent and much water. Absorb wash liquid onto suitable absorbent and transfer contaminated absorbent to suitable containers. The used containers should be properly closed and labelled.

Large spills which soak into the ground should be dug up and transferred to suitable containers. Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal.

6.4 Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

Section 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

In an industrial environment, it is recommended to avoid all personal contact with the product, if possible by using closed systems with remote system control. The material should be handled by mechanical means as much as possible. Adequate ventilation or local exhaust ventilation is required. The exhaust gases should be filtered or treated otherwise. For personal protection in this situation, see section 8.

For its use as a pesticide, first look for precautions and personal protection measures on the officially approved label on the packaging or for other official guidance or policy in force. If these are lacking, see section 8.

Remove contaminated clothing immediately. Wash thoroughly after handling. Before removing gloves, wash them with water and soap. After work, take off all work clothes and footwear. Take a shower, using water and soap. Wear only clean clothes when leaving job. Wash protective clothing and protective equipment with water and soap after each use.

Do not discharge to the environment. Do not contaminate water when disposing of equipment wash waters. Collect all waste material and remains from cleaning equipment, etc., and dispose of as hazardous waste. See section 13 for disposal.

7.2 Conditions for safe storage, including any incompatibilities

The product is stable under normal conditions of warehouse storage.

Store in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.

7.3 Specific end use(s)

The product is a registered pesticide which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

Section 8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

No established personal exposure limits. However, personal exposure limits defined by local regulations may exist and must be observed.

Component	Exposure Limit	Source
Chlorantraniliprole	AOEL of 0.36 mg/kg bw/day	EFSA
	PNEC 0.45 µg/l	-

8.2 Exposure controls

When using this product refer to the label for details. In all other cases, use the following Personal Protective Equipment:

The precautions mentioned below are primarily meant for handling of the undiluted product and for preparing the spray solution but can be recommended for spraying as well.

Respiratory protection: The product does not automatically present an airborne exposure concern when handled carefully, but in the event of an accidental discharge of the material which produces a heavy vapour or mist, workers must put on officially approved respiratory protection equipment with a universal filter type including particle filter.

Skin protection: Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls of PE must be discarded after use if contaminated. In cases of excessive or prolonged exposure, coveralls of barrier laminate may be required.

Hand protection:	Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber. The breakthrough times of these materials for the product are unknown, but it is expected that they will give adequate protection.
Eye protection:	Wear safety glasses. It is recommended to have an eye wash fountain immediately available in the workplace when there is a potential for eye contact.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid.
Colour:	Opaque white.
Odour:	Alcohol-like.
Melting point (°C):	Not determined.
Freezing point (°C):	Not determined.
Boiling point (°C):	> 100°C.
Flammability:	Not flammable.
Flash Point:	>100°C.
Auto. Ignition temp (°C):	> 400°C.
Decomposition temp (°C):	Not determined.
pH (at 20 °C):	7.48
Kinematic viscosity:	Not kinematic at 40°C.
Solubility:	Not determined.
Part. Coef. m-octanol/water:	Not determined.
Vapour pressure:	Not determined.
Density and/or relative den.:	1.0962 g/mL (at 20°C)

9.2 Other Information

9.2.1 Information with regard to physical hazard classes

Explosives:	Not Explosive.
Oxidising gases :	Not Oxidising.
Flammable liquids:	Not flammable.
Flammable solids:	Not flammable.

9.2.2 Other safety characteristics

None.

Section 10. STABILITY AND REACTIVITY

10.1 Reactivity

To our knowledge, the product has no special reactivities.

10.2 Chemical Stability

The product is stable during normal handling and storage at ambient temperatures.

10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid

Heating of the product will produce harmful and irritant vapours.

10.5 Incompatible material

None known.

10.6 Hazardous decomposition products

Please see section 5.

Section 11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity:

The product is not harmful by inhalation, in contact with skin or if swallowed. However, it should always be treated with the usual care of handling chemicals. The acute toxicity is measured as:

Route(s) of entry:

- ingestion LD50, oral, rat: > 5000 mg/kg (method OECD 425)
- skin LD50, dermal, rat: > 5000 mg/kg (method OECD 402)
- inhalation LC50, inhalation, rat: > 2 mg/l/4 h (method OECD 403)

Skin corrosion/irritation:

Not irritating to skin (method OECD 404).

Serious eye damage/irritation:

Not irritating to eyes (method OECD 405).

Respiratory or skin sensitisation:

Not a skin sensitizer (method OECD 429).

Germ cell mutagenicity:

The product contains no ingredients known to be mutagenic.

Carcinogenicity:

The product contains no ingredients known to be carcinogenic.

Reproductive toxicity:

The product contains no ingredients found to have adverse effects on reproduction.

STOT (single exposure):

To our knowledge, no specific effects have been observed after single exposure.

STOT (repeated exposure):

The following has been measured on the active ingredient

Chlorantraniliprole:

Target organ:

Liver

NOAEL:

1188 mg/kg bw/day in a 90-day oral rat study (method OECD 408). At this exposure, increased liver weight was found.

Aspiration hazards:

The product contains no ingredients known to present an aspiration pneumonia hazard. *

Symptoms and effects, acute and delayed:

To our knowledge, adverse effects in humans have not been reported.

Chlorantraniliprole

Toxicokinetics, metabolism and

Distribution:

Chlorantraniliprole is rapidly absorbed after oral intake and widely distributed in the body. It is extensively metabolised. Excretion is rapid, within a few days. No indication of bioaccumulation is found.

Acute toxicity:

The substance is not harmful by inhalation, in contact with skin or if swallowed. However, it should always be treated with the usual care of handling chemicals.

The acute toxicity is measured as:

Route(s) of entry

- ingestion LD50, oral, rat: > 5000 mg/kg (method OECD 425)
- skin LD50, dermal, rat: > 5000 mg/kg (method OECD 402)
- inhalation LC50, inhalation, rat: > 5.1 mg/L/4 h (method OECD 403)

Skin corrosion/irritation:

Not irritating to skin (method OECD 404).

Serious eye damage/irritation:

Not irritating to eyes (method OECD 405).

Respiratory or skin sensitisation:

Not a skin sensitizer (methods OECD 406 and 429).

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment: The 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

The product is very toxic to aquatic invertebrates and may be harmful to fish and algae. It is not considered a harmful to birds, insects and soil macro- and microorganisms.

The ecotoxicity of the product is measured as:

- Fish: Rainbow trout (*Oncorhynchus mykiss*): 96-h LC50: > 9.9 mg/L
- Invertebrates: Daphnids (*Daphnia magna*): 48-h EC50: 0.035 mg/L

- Algae:	Green algae (<i>Pseudokirchneriella subcapitata</i>):	72-h ErC50: > 20 mg/L
- Birds:	Bobwhite quail (<i>Colinus virginianus</i>):	LD50: > 2000 mg/kg
- Earthworms:	<i>Eisenia fetida</i> :	14-day LC50: > 1000 mg/kg
- Insects:	Bees:	48-h LD50, contact: > 541 µg/bee 48-h LD50, oral: > 541 µg/bee
Chlorantraniliprole:		
- Invertebrates:	Daphnids (<i>Daphnia magna</i>):	21-day NOEC: 0.00447 mg/l

12.2 Persistence and degradability

Chlorantraniliprole is not readily biodegradable. Primary degradation half-lives vary with circumstances but can be several years in aerobic soil. Accumulation in soil is possible if used in consecutive years.

12.3 Bioaccumulative potential

Bioaccumulation of **chlorantraniliprole** is not expected. measured Bioconcentration Factor (BCF) is 15 for whole fish. It is rapidly excreted, within a few days.

12.4 Mobility in soil

Chlorantraniliprole is not mobile 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 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: Remaining quantities of the material and empty but unclean packaging should be regarded as hazardous waste.

Disposal of product: Disposal of waste and packaging must always be in accordance with all applicable local regulations. According to the Waste Framework Directive (2008/98/EC), possibilities for reuse or reprocessing should first be considered. If this is not feasible, the material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing.

Contaminated packaging: Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

It is recommended to consider possible ways of disposal in the following order:

1. Reuse or recycling should first be considered. Reuse is prohibited except by the authorisation holder. If offered for recycling, containers must be emptied and triply rinsed (or equivalent). Do not discharge rinsing water to sewer systems.

2. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

3. Delivery of the packaging to a licensed service for disposal of hazardous waste.

4. Disposal in a landfill or burning in open air should only occur as a last resort. For disposal in a landfill, containers should be emptied completely, rinsed and punctured to make them unusable for other purposes. If burned, stay out of smoke.

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., (Chlorantraniliprole).

14.3 Transport hazard class(es)

9.

14.4 Packing group

III.

14.5 Environmental hazards

Marine Pollutant.

14.6 Special precautions for user

Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not discharge to the environment.

14.7 Maritime transport in bulk according to IMO instruments

The product is not transported in bulk by ship.

Section 15. REGULATORY INFORMATION

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

None.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out on this mixture by the supplier.

Section 16. OTHER INFORMATION

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

H400 Very toxic to aquatic life.

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.

The information presented in this document is accurate to the best of our knowledge at the date of its publication. However, the information given is designed only as a guide for the methods of handling, storage, use, transportation and disposal of the product and is not considered a warranty or quality specification. Life Scientific Limited cannot be held responsible for any loss or damage resulting from the handling, storage, use or disposal of the product. The information contained in this document relates only to this specific product.

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