



LUNA TRANQUILITY SC500 12X1L BOT IL

Version 6 / EU
102000017503

1/11
Revision Date: 07.11.2018
Print Date: 11.06.2021

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

1.1 Product identifier

Trade name LUNA TRANQUILITY SC500 12X1L BOT IL
Product code (UVP) 84445908

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

Use Fungicide

1.3 Details of the supplier of the safety data sheet

Supplier Bayer AG
Kaiser-Wilhelm-Allee 1
51373 Leverkusen
Germany

Telefax +49(0)2173-38-7394

Responsible Department Substance Classification & Registration
+49(0)2173-38-3409 (during business hours only)
Email: BCS-SDS@bayer.com

1.4 Emergency telephone no.

Emergency telephone no. Global Incident Response Hotline (24h)
+1 (760) 476-3964 (Company 3E for Bayer AG, Crop Science Division)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Chronic aquatic toxicity: Category 2
H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Pyrimethanil
- Fluopyram





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Hazard statements

- H411 Toxic to aquatic life with long lasting effects.
 EUH401 To avoid risks to human health and the environment, comply with the instructions for use.
 EUH208 Contains 1,2-benzisothiazolin-3-one, reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one (3:1). May produce an allergic reaction.

Precautionary statements

- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

Suspension concentrate (=flowable concentrate)(SC)
 Fluopyram 125 g/l, Pyrimethanil 375 g/l

Hazardous components

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Fluopyram	658066-35-4 619-797-7	Aquatic Chronic 2, H411	11,3
Pyrimethanil	53112-28-0 414-220-3	Aquatic Chronic 2, H411	33,8
1,2-Benzisothiazol-3(2H)-one	2634-33-5 220-120-9 01-2120761540-60-xxxx	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	>= 0,005 – < 0,05
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)	55965-84-9	Acute Tox. 3, H301 Acute Tox. 2, H310 Acute Tox. 2, H330 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	>= 0.00015 – <= 0.0015

Further information

1,2-Benzisothiazol-3(2H)-one	2634-33-5	M-Factor: 1 (acute)
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reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	M-Factor: 100 (acute), 100 (chronic)
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For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice	Move out of dangerous area. Remove contaminated clothing immediately and dispose of safely. Place and transport victim in stable position (lying sideways).
Inhalation	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
Skin contact	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.
Ingestion	Do NOT induce vomiting. Call a physician or poison control center immediately. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment Treat symptomatically. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable	High volume water jet



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5.2 Special hazards arising from the substance or mixture	In the event of fire the following may be released:., Hydrogen cyanide (hydrocyanic acid), Hydrogen chloride (HCl), Hydrogen fluoride, Carbon monoxide (CO), Carbon dioxide (CO ₂), Nitrogen oxides (NO _x)
5.3 Advice for firefighters	
Special protective equipment for firefighters	In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit.
Further information	Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

6.2 Environmental precautions Do not allow to get into surface water, drains and ground water.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Collect and transfer the product into a properly labelled and tightly closed container.

6.4 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 Use only in area provided with appropriate exhaust ventilation.

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

Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in a place accessible by authorized persons only. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from frost.

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



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Suitable materials HDPE (high density polyethylene)
Coex HDPE/EVOH/HDPE

7.3 Specific end use(s) Refer to the label and/or leaflet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Fluopyram	658066-35-4	0,34 mg/m ³ (TWA)		OES BCS*
Pyrimethanil	53112-28-0	5,6 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

8.2 Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

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, 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 Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Wash gloves when contaminated. 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.
Material Nitrile rubber
Rate of permeability > 480 min
Glove thickness > 0,4 mm
Protective index Class 6
Directive Protective gloves complying with EN 374.

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

Skin and body protection Wear standard coveralls and Category 3 Type 6 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.



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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form	suspension
Colour	white to beige
Odour	characteristic
pH	5,0 - 8,5 (100 %) (23 °C)
Boiling point/boiling range	99 °C (1.006 hPa)
Flash point	No flash point - Determination conducted up to the boiling point.
Ignition temperature	560 °C
Density	ca. 1,11 g/cm ³ (20 °C)
Partition coefficient: n-octanol/water	Fluopyram: log Pow: 3,3 Pyrimethanil: log Pow: 2,84
Viscosity, dynamic	220 - 350 mPa.s (20 °C) Velocity gradient 20 /s
Oxidizing properties	No oxidizing properties
Explosivity	Not explosive 92/69/EEC, A.14 / OECD 113
9.2 Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Thermal decomposition 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 LD50 (Rat) > 2.000 mg/kg



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Acute inhalation toxicity	LC50 (Rat) > 1,973 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. Highest attainable concentration.
Acute dermal toxicity	LD50 (Rat) > 2.000 mg/kg
Skin corrosion/irritation	No skin irritation (Rabbit)
Serious eye damage/eye irritation	No eye irritation (Rabbit)
Respiratory or skin sensitisation	Skin: Non-sensitizing. (Mouse) OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment STOT Specific target organ toxicity – single exposure

Fluopyram: Based on available data, the classification criteria are not met.
Pyrimethanil: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

Fluopyram did not cause specific target organ toxicity in experimental animal studies.
Pyrimethanil did not cause any significant specific adverse effects or target organ toxicity in subchronic toxicity studies.

Assessment mutagenicity

Fluopyram was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Pyrimethanil was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Fluopyram caused at high dose levels an increased incidence of tumours in rats in the following organ(s): Liver.
Fluopyram caused at high dose levels an increased incidence of tumours in mice in the following organ(s): Thyroid.
The tumours seen with Fluopyram were caused through a non-genotoxic mechanism, which is not relevant at low doses. The mechanism that triggers these tumours is not relevant to humans.
Pyrimethanil was not carcinogenic in lifetime feeding studies in mice. Pyrimethanil caused at high dose levels an increased incidence of tumours in rats in the following organ(s): Thyroid. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

Assessment toxicity to reproduction

Fluopyram caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Fluopyram is related to parental toxicity.
Pyrimethanil did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Fluopyram caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Fluopyram are related to maternal toxicity.
Pyrimethanil did not cause developmental toxicity in rats and rabbits.

Aspiration hazard

Based on available data, the classification criteria are not met.



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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish

LC50 (Oncorhynchus mykiss (rainbow trout)) 10,56 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient pyrimethanil.

LC50 (Oncorhynchus mykiss (rainbow trout)) > 2 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient fluopyram.
No acute toxicity was observed at its limit of water solubility.

Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) 2,9 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient pyrimethanil.

EC50 (Daphnia magna (Water flea)) > 20 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient fluopyram.
No acute toxicity was observed at its limit of water solubility.

Toxicity to aquatic plants

EC50 (Raphidocelis subcapitata (freshwater green alga)) 8,9 mg/l
Growth rate; Exposure time: 72 h
The value mentioned relates to the active ingredient fluopyram.

IC50 (Raphidocelis subcapitata (freshwater green alga)) 1,2 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient pyrimethanil.

12.2 Persistence and degradability

Biodegradability

Fluopyram:
Not rapidly biodegradable
Pyrimethanil:
Not rapidly biodegradable

Koc

Fluopyram: Koc: 279
Pyrimethanil: Koc: 301

12.3 Bioaccumulative potential

Bioaccumulation

Fluopyram: Bioconcentration factor (BCF) 18
Does not bioaccumulate.
Pyrimethanil:
Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil

Fluopyram: Moderately mobile in soils
Pyrimethanil: Moderately mobile in soils

12.5 Results of PBT and vPvB assessment

Not relevant as no chemical safety report is necessary.

PBT and vPvB assessment

Fluopyram: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Pyrimethanil: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be



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very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Additional ecological information No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product 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.

Contaminated packaging Not completely emptied packagings should be disposed of as hazardous waste.

Waste key for the unused product **02 01 08*** agrochemical waste containing hazardous substances

SECTION 14: TRANSPORT INFORMATION

ADR/RID/ADN

14.1 UN number **3082**

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRIMETHANIL SOLUTION)

14.3 Transport hazard class(es) 9

14.4 Packaging Group III

14.5 Environm. Hazardous Mark YES

Hazard no. 90

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

IMDG

14.1 UN number **3082**

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRIMETHANIL SOLUTION)

14.3 Transport hazard class(es) 9

14.4 Packaging Group III

14.5 Marine pollutant YES

IATA

14.1 UN number **3082**

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRIMETHANIL SOLUTION)

14.3 Transport hazard class(es) 9

14.4 Packaging Group III

14.5 Environm. Hazardous Mark YES



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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 and the IBC Code

No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION

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

Further information

WHO-classification: III (Slightly hazardous)

15.2 Chemical safety assessment

A chemical safety assessment is not required.

SECTION 16: OTHER INFORMATION

Text of the hazard statements mentioned in Section 3

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
EC-No.	European community number
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)



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ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

Reason for Revision: Reviewed and updated for general editorial purposes. The following sections have been revised: Section 3: Composition / Information on Ingredients. Section 9: Physical and Chemical Properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.