

SAFETY DATA SHEET

According to Commission Regulation (EU) 2020/878 of amending
Regulation (EC) No 1907/2006



STEWARD®

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	11.01.2023	50000054	Date of first issue: 11.01.2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name STEWARD®

Other means of identification

Product code 50000054

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

Use of the Sub- stance/Mixture	Insecticide
Recommended restrictions on use	Use as recommended by the label.

1.3 Details of the supplier of the safety data sheet

Supplier Address FMC Agricultural Solutions A/S
Thyborønvej 78
DK-7673 Harbøre
Denmark

Telephone: +45 9690 9690
Telefax: +45 9690 9691
E-mail address: SDS-Info@fmc.com .

1.4 Emergency telephone number

For leak, fire, spill or accident emergencies, call:
Denmark: +45-69918573 (CHEMTREC)

Medical emergency:
Denmark: +45 82 12 12 12

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Specific target organ toxicity - repeated exposure, Category 1, Blood, Nervous system, Heart	H372: Causes damage to organs through prolonged or repeated exposure.

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Long-term (chronic) aquatic hazard, Category 1

H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements :
H302 Harmful if swallowed.
H372 Causes damage to organs (Blood, Nervous system, Heart) through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P260 Do not breathe dust or spray.
P264 Wash skin thoroughly after handling.
Response:
P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
P314 Get medical advice/ attention if you feel unwell.
P391 Collect spillage.
Disposal:
P501 Dispose of contents/container in accordance with local regulation.

Hazardous components which must be listed on the label:

indoxacarb (ISO)

Additional Labelling

EUH208 Contains indoxacarb (ISO). May produce an allergic reaction.

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

For special phrases (SP) and safety intervals, consult the label.

2.3 Other hazards

This substance/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.

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Ecological information: The substance/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.

Toxicological information: The substance/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 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Lignin, alkali, reaction products with formaldehyde and sodium bisulfite	68512-35-6	Eye Irrit. 2; H319 STOT SE 3; H335 (Respiratory system)	>= 30 - < 50
indoxacarb (ISO)	173584-44-6 607-700-00-0	Acute Tox. 3; H301 Acute Tox. 4; H332 Skin Sens. 1B; H317 STOT RE 1; H372 (Heart, Nervous system, Blood) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1 Acute toxicity estimate Acute inhalation toxicity (dust/mist): 4,2 mg/l	>= 25 - < 30

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.

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Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

- | | | |
|-------------------------|---|---|
| If inhaled | : | Remove to fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician. |
| In case of skin contact | : | If on clothes, remove clothes.
If on skin, rinse well with water.
Wash off with soap and plenty of water.
Get medical attention if irritation develops and persists. |
| In case of eye contact | : | Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist. |
| If swallowed | : | Do not induce vomiting without medical advice.
Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital. |

4.2 Most important symptoms and effects, both acute and delayed

- | | | |
|-------|---|---|
| Risks | : | Acute effects on nervous system: drowsiness, tremors, paralysis.
Chronic, additionally: Cyanosis |
|-------|---|---|

Harmful if swallowed.
Causes damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

- | | | |
|-----------|---|---|
| Treatment | : | Indoxacarb acts by blocking sodium channels in the nervous system. Secondly, it has oxidant effects on red blood cells causing methemoglobinemia.
Gastric lavage and/or administration of activated charcoal can be considered. After decontamination, treatment is primarily supportive and symptomatic. Consider possibility of methemoglobinemia and treat with methylene blue if required.
Treat symptomatically. |
|-----------|---|---|

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | | |
|------------------------------|---|--|
| Suitable extinguishing media | : | Dry chemical, CO ₂ , water spray or regular foam. |
|------------------------------|---|--|

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Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Thermal decomposition can lead to release of irritating gases and vapours.
Chlorinated compounds
Fluorinated compounds
Nitrogen oxides (NO_x)
Carbon oxides
Hydrogen cyanide
Hydrogen chloride
Hydrogen fluoride
Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : Firefighters should wear protective clothing and self-contained breathing apparatus.

Wear self-contained breathing apparatus for firefighting if necessary.

Specific extinguishing methods : Use a water spray to cool fully closed containers.

Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.
If it can be safely done, stop the leak.
Keep people away from and upwind of spill/leak.
Remove all sources of ignition.
Immediately evacuate personnel to safe areas.
Ensure adequate ventilation.
Never return spills in original containers for re-use.
Mark the contaminated area with signs and prevent access to

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unauthorized personnel.
Only qualified personnel equipped with suitable protective
equipment may intervene.
For disposal considerations see section 13.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform
respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of respirable particles.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the ap-
plication area.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national
regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Avoid dust formation. Provide appropriate exhaust ventilation
at places where dust is formed.

Hygiene measures : General industrial hygiene practice. Avoid contact with skin,
eyes and clothing. Do not breathe dust or spray mist.

When using do not eat or drink. When using do not smoke.
Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated
place. Containers which are opened must be carefully re-
sealed and kept upright to prevent leakage. Observe label
precautions. Electrical installations / working materials must
comply with the technological safety standards.

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Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Registered pesticide to be used in accordance with a label approved by country-specific regulatory authorities.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
silica gel	112926-00-8	GV (total)	0,3 mg/m ³ (Silica)	DK OEL
		GV (respirable)	0,1 mg/m ³ (Silica)	DK OEL
Further information	Means that the substance is included in the list of substances considered carcinogenic.			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
silica gel	Workers	Inhalation	Long-term systemic effects	4 mg/m ³

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Hand protection
Material : Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Equipment should conform to EN 143

Filter type : Particulates type (P)

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Protective measures : Plan first aid action before beginning work with this product. Always have on hand a first-aid kit, together with proper instructions.
Wear suitable protective equipment.
When using do not eat, drink or smoke.
In the context of professional plant protection use as recommended, the end user must refer to the label and the instructions for use.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: dry, free flowing granules
Colour	: dark brown
Odour	: mild, woody
Odour Threshold	: not determined
Melting point/freezing point	: Not available for this mixture.
Boiling point/boiling range	: No data available
Flammability	: Does not sustain combustion.
Upper explosion limit / Upper flammability limit	: Not available for this mixture.
Lower explosion limit / Lower flammability limit	: Not available for this mixture.
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: not determined
pH	: 7,5 (20 °C) Concentration: 10 g/l
Viscosity	
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable
Solubility(ies)	
Water solubility	: dispersible

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Partition coefficient: n-octanol/water : Not available for this mixture.

Vapour pressure : Not available for this mixture.

Relative density : 0,8

Density : No data available

Bulk density : 800 kg/m³

Relative vapour density : Not available for this mixture.

Particle characteristics
Particle size : No data available

Particle Size Distribution : No data available

Shape : No data available

9.2 Other information

Explosives : Not explosive

Oxidizing properties : The product is not oxidizing.

Method: Directive 67/548/EEC, Annex V, A.17.

Self-ignition : not auto-flammable

Evaporation rate : Not available for this mixture.

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

Dust may form explosive mixture in air.

10.4 Conditions to avoid

Conditions to avoid : Avoid dust formation.
Heat, flames and sparks.

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10.5 Incompatible materials

Materials to avoid : Avoid strong acids, bases, and oxidizers

10.6 Hazardous decomposition products

Stable under recommended storage conditions.

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity : LD50 (Rat, male): 1.876 mg/kg
Method: OECD Test Guideline 401
Assessment: The component/mixture is moderately toxic after single ingestion.

LD50 (Rat, female): 687 mg/kg
Method: OECD Test Guideline 401
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat): > 5,6 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Components:

indoxacarb (ISO):

Acute oral toxicity : LD50 (Rat, female): 179 mg/kg
Remarks: nervous system effects such as
Hypoactivity
Tremors
Incoordination
Abnormal tearing
mortality
Motor Activity effects

LD50 (Rat, male): 1.070 mg/kg
Method: OECD Test Guideline 401
GLP: yes

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Remarks: Information source: Internal study report

Acute inhalation toxicity : LC50 (Rat): 4,2 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

LC50 (Rat): > 4,2 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
Remarks: Information source: Internal study report

Acute toxicity estimate: 4,2 mg/l
Test atmosphere: dust/mist
Method: Calculation method

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Remarks: Information source: Internal study report

Skin corrosion/irritation

Not classified based on available information.

Product:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Components:

indoxacarb (ISO):

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : yes

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : yes
Remarks : Information source: Internal study report

Serious eye damage/eye irritation

Not classified based on available information.

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Product:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation
Remarks	:	Product dust may be irritating to eyes, skin and respiratory system.
Remarks	:	Product dust may be irritating to eyes, skin and respiratory system.

Components:

Lignin, alkali, reaction products with formaldehyde and sodium bisulfite:

Result	:	Moderate eye irritation
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indoxacarb (ISO):

Species	:	Rabbit
Assessment	:	No eye irritation
Method	:	OECD Test Guideline 405
Result	:	No eye irritation
GLP	:	yes
Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation
GLP	:	yes
Remarks	:	Information source: Internal study report

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Product:

Test Type	:	Maximisation Test
Species	:	Guinea pig
Assessment	:	Did not cause sensitisation on laboratory animals.
Method	:	OECD Test Guideline 406

Components:

indoxacarb (ISO):

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Assessment	:	The product is a skin sensitiser, sub-category 1B.
Method	:	OECD Test Guideline 406
Result	:	May cause sensitisation by skin contact.

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GLP : yes

Test Type : Maximisation Test
Species : Guinea pig
Assessment : May cause sensitisation by skin contact.
Method : OECD Test Guideline 406
Result : Causes sensitisation.
GLP : yes

Remarks : Information source: Internal study report

Germ cell mutagenicity

Not classified based on available information.

Components:

indoxacarb (ISO):

Genotoxicity in vitro : Test Type: reverse mutation assay
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Method: OECD Test Guideline 474
Result: negative

Germ cell mutagenicity- Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects., Animal testing did not show any mutagenic effects.

Carcinogenicity

Not classified based on available information.

Components:

indoxacarb (ISO):

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Not classified based on available information.

Components:

indoxacarb (ISO):

Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility., No toxicity to reproduction
Animal testing did not show any effects on foetal development.

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STOT - single exposure

Not classified based on available information.

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

Components:

Lignin, alkali, reaction products with formaldehyde and sodium bisulfite:

Assessment : May cause respiratory irritation.

indoxacarb (ISO):

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Causes damage to organs (Blood, Nervous system, Heart) through prolonged or repeated exposure.

Product:

Target Organs : Blood, Nervous system, Heart
Assessment : Causes damage to organs through prolonged or repeated exposure.

Components:

indoxacarb (ISO):

Target Organs : Blood, Nervous system, Heart
Assessment : Causes damage to organs through prolonged or repeated exposure.

Target Organs : Blood, Nervous system, Heart
Assessment : May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Components:

indoxacarb (ISO):

Species : Rat
NOAEL : 0,6 mg/kg
Application Route : Oral
Exposure time : 90 d
Target Organs : Blood, Nervous system

Species : Rat
Application Route : Inhalation
Remarks : Incoordination

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mortality
Red blood cell destruction causing abnormal decrease in
number of red blood cells (anemia)

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/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.

Neurological effects

Components:

indoxacarb (ISO):

Remarks : Neurotoxicity observed in animals studies

Further information

Product:

Remarks : Acute effects on nervous system: drowsiness, tremors, paralysis.
Chronic, additionally: Cyanosis

Components:

indoxacarb (ISO):

Remarks : Acute effects on nervous system: drowsiness, tremors, paralysis.
Chronic, additionally: Cyanosis

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1,8 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: Information source: Internal study report

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(Data on the product itself)

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,7 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EbC50 (Pseudokirchneriella subcapitata (green algae)): > 1,2 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to terrestrial organisms : LD50: 580 mg/kg
Species: Colinus virginianus (Bobwhite quail)
Method: US EPA Test Guideline OPP 71-1
GLP:yes

LD50: 0,0016 µg/bee
Exposure time: 48 h
End point: Acute oral toxicity
Species: Apis mellifera (bees)
Method: OEPP/EPPO Test Guideline 170
GLP:yes

LD50: 0,0013 µg/bee
Exposure time: 48 h
End point: Acute contact toxicity
Species: Apis mellifera (bees)
Method: OEPP/EPPO Test Guideline 170
GLP:yes

Components:

Lignin, alkali, reaction products with formaldehyde and sodium bisulfite:

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic effects cannot be excluded

Chronic aquatic toxicity : Toxic effects cannot be excluded

indoxacarb (ISO):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,65 mg/l
Exposure time: 96 h
Test Type: flow-through test
Method: OECD Test Guideline 203
GLP: yes

LC50 (Oncorhynchus mykiss (rainbow trout)): 0,65 mg/l
Exposure time: 96 h
Test Type: flow-through test
Method: OECD Test Guideline 203
GLP: yes
Remarks: Information source: Internal study report

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LC50 (Lepomis macrochirus (Bluegill sunfish)): 0,90 mg/l
Exposure time: 96 h
Test Type: flow-through test
Method: OECD Test Guideline 203
GLP: yes
Remarks: Information source: Internal study report

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0,6 mg/l
aquatic invertebrates Exposure time: 48 h

EC50 (Daphnia magna (Water flea)): 0,60 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes
Remarks: Information source: Internal study report

EC50 (Americamysis bahia (mysid shrimp)): 0,0543 mg/l
Exposure time: 96 h
Test Type: flow-through test
Method: US EPA Test Guideline OPP 72-3
GLP: yes
Remarks: Information source: Internal study report

Toxicity to algae/aquatic : EbC50 (Lemna gibba (duckweed)): 0,084 mg/l
plants Exposure time: 7 d

ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,079
mg/l
Exposure time: 72 h

EC50 (Lemna gibba (duckweed)): > 84,3 mg/l
Exposure time: 14 d

EC50 (Lemna gibba (duckweed)): > 84,3 mg/l
End point: Biomass
Exposure time: 14 d
Method: US EPA Test Guideline OPP 122-2 & 123-2
GLP: yes
Remarks: Information source: Internal study report

(Pseudokirchneriella subcapitata (green algae)): Method:
Directive 67/548/EEC, Annex V, C.3.
GLP: yes
Remarks: There were no detectable inhibitory effects on the
cell density, growth, and growth rate of Pseudokirchneriella
subcapitata after 72 or 120 hours exposure at the solubility
limit in the test medium.

Information source: Internal study report

M-Factor (Acute aquatic tox- : 1

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Toxicity to fish (Chronic toxicity) : NOEC: 0,15 mg/l
Exposure time: 90 d
Species: Oncorhynchus mykiss (rainbow trout)
Test Type: Early Life-Stage
Method: OECD Test Guideline 210
GLP: yes

NOEC: 0,15 mg/l
Exposure time: 90 d
Species: Oncorhynchus mykiss (rainbow trout)
Test Type: Early Life-Stage
Method: OECD Test Guideline 210
GLP: yes
Remarks: Information source: Internal study report

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,09 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 202
GLP: yes

NOEC: 0,075 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 202
GLP: yes
Remarks: Information source: Internal study report

M-Factor (Chronic aquatic toxicity) : 1

Toxicity to soil dwelling organisms : LC50: > 1.250 mg/kg
Exposure time: 14 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 207
GLP:yes

LC50: > 1.250 mg/kg
Exposure time: 14 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 207
GLP:yes
Remarks: Information source: Internal study report

Toxicity to terrestrial organisms : LD50: 0,216 µg/bee
End point: Acute oral toxicity
Species: Apis mellifera (bees)

LD50: 0,094 µg/bee
End point: Acute contact toxicity
Species: Apis mellifera (bees)

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LD50: 98 mg/kg
Species: *Colinus virginianus* (Bobwhite quail)

LD50: 98 mg/kg
Species: *Colinus virginianus* (Bobwhite quail)
Method: US EPA Test Guideline OPP 71-1
GLP:yes
Remarks: Information source: Internal study report

LC50: > 5.620 mg/kg
Exposure time: 5 d
Species: *Anas platyrhynchos* (Mallard duck)
Method: OECD Test Guideline 205
GLP:yes
Remarks: Dietary
Information source: Internal study report

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

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

12.2 Persistence and degradability

Product:

Biodegradability : Result: Not readily biodegradable.
Remarks: Estimation based on data obtained on active ingredient.
Product contains minor amounts of not readily biodegradable components, which may not be degradable in waste water treatment plants.

Components:

Lignin, alkali, reaction products with formaldehyde and sodium bisulfite:

Biodegradability : Result: Not readily biodegradable.

indoxacarb (ISO):

Biodegradability : Result: Not readily biodegradable.

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Does not bioaccumulate.
Information refers to the main component.

Components:

indoxacarb (ISO):

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Bioaccumulation : Bioconcentration factor (BCF): 950
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 0,57 (20 °C)

12.4 Mobility in soil

Product:

Distribution among environmental compartments : Remarks: The product is not expected to be mobile in soils.
Estimation based on data obtained on active ingredient.

Components:

indoxacarb (ISO):

Distribution among environmental compartments : Remarks: immobile

Stability in soil :

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/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.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/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

Product:

Additional ecological information : No other ecological effects to be specially mentioned.
See product label for additional application instructions relating to environmental precautions.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

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Components:

indoxacarb (ISO):

Additional ecological information : No other ecological effects to be specially mentioned.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	: Empty remaining contents. Do not re-use empty containers. Packaging that is not properly emptied must be disposed of as the unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

14.1 UN number or ID number

ADN	: UN 3077
ADR	: UN 3077
RID	: UN 3077
IMDG	: UN 3077
IATA	: UN 3077

14.2 UN proper shipping name

ADN	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Indoxacarb)
ADR	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Indoxacarb)
RID	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Indoxacarb)
IMDG	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

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IATA : N.O.S.
(Indoxacarb)
: Environmentally hazardous substance, solid, n.o.s.
(Indoxacarb)

14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADN	: 9	
ADR	: 9	
RID	: 9	
IMDG	: 9	
IATA	: 9	

14.4 Packing group

ADN
Packing group : III
Classification Code : M7
Hazard Identification Number : 90
Labels : 9

ADR
Packing group : III
Classification Code : M7
Hazard Identification Number : 90
Labels : 9
Tunnel restriction code : (-)

RID
Packing group : III
Classification Code : M7
Hazard Identification Number : 90
Labels : 9

IMDG
Packing group : III
Labels : 9
EmS Code : F-A, S-F

IATA (Cargo)
Packing instruction (cargo aircraft) : 956
Packing instruction (LQ) : Y956
Packing group : III
Labels : Miscellaneous

IATA (Passenger)
Packing instruction (passenger aircraft) : 956
Packing instruction (LQ) : Y956
Packing group : III
Labels : Miscellaneous

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14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

IATA (Passenger)

Environmentally hazardous : yes

IATA (Cargo)

Environmentally hazardous : yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

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Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

E1 ENVIRONMENTAL HAZARDS

Other regulations:

Young people under the age of 18 are not allowed to use or be exposed to the product professionally. Young people above the age of 15 are, however, except from this rule if the product is a necessary part of their education.

The components of this product are reported in the following inventories:

TCSI	: On the inventory, or in compliance with the inventory
TSCA	: Product contains substance(s) not listed on TSCA inventory.
AIIC	: Not in compliance with the inventory
DSL	: This product contains the following components that are not on the Canadian DSL nor NDSL. METHYL (S)-7-CHLORO-2,3,4A,5-TETRAHYDRO-2- {(METHOXYCARBONYL)[4- (TRIFLUOROMETHOXY)PHENYL]CARBAMOYL}INDENO[1, 2-E][1,3,4]OXADIAZINE-4A-CARBOXYLATE Lignin, alkali, reaction products with formaldehyde and sodium bisulfite
ENCS	: Not in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: Not in compliance with the inventory
NZIoC	: Not in compliance with the inventory
TECI	: Not in compliance with the inventory

15.2 Chemical safety assessment

A chemical safety assessment is not required for this product (mixture).

SECTION 16: Other information

Full text of H-Statements

H301	: Toxic if swallowed.
H317	: May cause an allergic skin reaction.
H319	: Causes serious eye irritation.

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H332	: Harmful if inhaled.
H335	: May cause respiratory irritation.
H372	: Causes damage to organs through prolonged or repeated exposure.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Eye Irrit.	: Eye irritation
Skin Sens.	: Skin sensitisation
STOT RE	: Specific target organ toxicity - repeated exposure
STOT SE	: Specific target organ toxicity - single exposure
DK OEL	: Denmark. Occupational Exposure Limits
DK OEL / GV	: Long term exposure limit

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

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Classification of the mixture:

Acute Tox. 4	H302
STOT RE 1	H372
Aquatic Chronic 1	H410

Classification procedure:

Based on product data or assessment
Based on product data or assessment
Calculation method

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