

Oxfendazole / Oxyclozanide Formulation

Version 4.0 Revision Date: 30.09.2023 SDS Number: 7942502-00007 Date of last issue: 04.04.2023
Date of first issue: 19.03.2021

SECTION 1: IDENTIFICATION

Product name : Oxfendazole / Oxyclozanide Formulation

Manufacturer or supplier's details

Company : MSD

Address : 91-105 Harpin Street
Bendigo 3550, Victoria Australia

Telephone : 1 800 033 461

Emergency telephone number : Poisons Information Centre: Phone 13 11 26

E-mail address : EHSDATASTEWARD@msd.com

Recommended use of the chemical and restrictions on use

Recommended use : Veterinary medicine

Restrictions on use : Not applicable

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Reproductive toxicity : Category 1B

Specific target organ toxicity - single exposure (Oral) : Category 2 (Central nervous system)

Specific target organ toxicity - repeated exposure : Category 2 (Liver, Testis, Brain)

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H360FD May damage fertility. May damage the unborn child.
H371 May cause damage to organs (Central nervous system) if swallowed.
H373 May cause damage to organs (Liver, Testis, Brain) through prolonged or repeated exposure.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.

Oxfendazole / Oxyclozanide Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
4.0	30.09.2023	7942502-00007	Date of first issue: 19.03.2021

P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe dust.
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

Dust contact with the eyes can lead to mechanical irritation.
 Contact with dust can cause mechanical irritation or drying of the skin.
 May form explosive dust-air mixture during processing, handling or other means.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
oxyclozanide	2277-92-1	>= 30 -< 60
oxfendazole	53716-50-0	>= 10 -< 30
Starch, oxidized	65996-62-5	>= 10 -< 30
Magnesium stearate	557-04-0	< 10

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
 When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
 Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with soap and plenty of water.
 Remove contaminated clothing and shoes.
 Get medical attention.
 Wash clothing before reuse.
 Thoroughly clean shoes before reuse.

In case of eye contact : If in eyes, rinse well with water.

Oxfendazole / Oxyclozanide Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
4.0	30.09.2023	7942502-00007	Date of first issue: 19.03.2021

If swallowed	:	Get medical attention if irritation develops and persists. If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	:	May damage fertility. May damage the unborn child. May cause damage to organs if swallowed. May cause damage to organs through prolonged or repeated exposure. Contact with dust can cause mechanical irritation or drying of the skin. Dust contact with the eyes can lead to mechanical irritation.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
Notes to physician	:	Treat symptomatically and supportively.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO ₂) Dry chemical
Unsuitable extinguishing media	:	None known.
Specific hazards during fire-fighting	:	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Exposure to combustion products may be a hazard to health.
Hazardous combustion products	:	Carbon oxides Chlorine compounds Nitrogen oxides (NO _x) Metal oxides Oxides of phosphorus
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
Hazchem Code	:	2Z

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).
Environmental precautions	:	Avoid release to the environment.

Oxfendazole / Oxyclozanide Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
4.0	30.09.2023	7942502-00007	Date of first issue: 19.03.2021

Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.
Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures : Static electricity may accumulate and ignite suspended dust causing an explosion.
Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.

Advice on safe handling : Do not get on skin or clothing.
Do not breathe dust.
Do not swallow.
Avoid contact with eyes.
Wash skin thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep container tightly closed.
Minimize dust generation and accumulation.
Keep container closed when not in use.
Keep away from heat and sources of ignition.
Take precautionary measures against static discharges.
Do not eat, drink or smoke when using this product.
Take care to prevent spills, waste and minimize release to the environment.

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.
The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the

Oxfendazole / Oxyclozanide Formulation

Version 4.0 Revision Date: 30.09.2023 SDS Number: 7942502-00007 Date of last issue: 04.04.2023
 Date of first issue: 19.03.2021

Conditions for safe storage : use of administrative controls.
 : Keep in properly labelled containers.
 : Store locked up.
 : Keep tightly closed.
 : Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:
 : Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
oxyclozanide	2277-92-1	TWA	0.4 mg/m ³ (OEB 2)	Internal
oxfendazole	53716-50-0	TWA	40 µg/m ³ (OEB 3)	Internal
		Wipe limit	400 µg/100 cm ²	Internal
Starch, oxidized	65996-62-5	TWA (inhalable dust)	0.5 mg/m ³	ACGIH
Magnesium stearate	557-04-0	TWA	10 mg/m ³	AU OEL
		TWA (Inhalable particulate matter)	10 mg/m ³	ACGIH
		TWA (Respirable particulate matter)	3 mg/m ³	ACGIH

Engineering measures : All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.
 Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face containment devices).
 Minimize open handling.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Particulates type

Hand protection

Material : Chemical-resistant gloves

Remarks : Consider double gloving.

Eye protection : Wear safety glasses with side shields or goggles.
 If the work environment or activity involves dusty conditions,

Oxfendazole / Oxyclozanide Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
4.0	30.09.2023	7942502-00007	Date of first issue: 19.03.2021

mists or aerosols, wear the appropriate goggles.
Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

Skin and body protection : Work uniform or laboratory coat.
Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces.
Use appropriate degowning techniques to remove potentially contaminated clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	powder
Colour	:	white to off-white, light cream, cream
Odour	:	No data available
Odour Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	May form explosive dust-air mixture during processing, handling or other means.
Flammability (liquids)	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	No data available
Density	:	0.88 g/cm ³
Solubility(ies) Water solubility	:	No data available

Oxfendazole / Oxyclozanide Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
4.0	30.09.2023	7942502-00007	Date of first issue: 19.03.2021

Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	
Viscosity, kinematic	:	Not applicable
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Molecular weight	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	May form explosive dust-air mixture during processing, handling or other means. Can react with strong oxidizing agents.
Conditions to avoid	:	Heat, flames and sparks. Avoid dust formation.
Incompatible materials	:	Oxidizing agents
Hazardous decomposition products	:	No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Exposure routes	:	Inhalation Skin contact Ingestion Eye contact
-----------------	---	--

Acute toxicity

Not classified based on available information.

Components:**oxyclozanide:**

Acute oral toxicity	:	LD50 (Rat): 3,519 mg/kg Target Organs: Central nervous system
Acute toxicity (other routes of administration)	:	LDLo (sheep): 10 mg/kg Application Route: Intravenous

oxfendazole:

Oxfendazole / Oxyclozanide Formulation

Version 4.0 Revision Date: 30.09.2023 SDS Number: 7942502-00007 Date of last issue: 04.04.2023
Date of first issue: 19.03.2021

Acute oral toxicity : LD50 (Rat): > 6,000 mg/kg
LD50 (Dog): 1,600 mg/kg
LD50 (sheep): 250 mg/kg

Magnesium stearate:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 423
Assessment: The substance or mixture has no acute oral toxicity
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Remarks: Based on data from similar materials

Skin corrosion/irritation

Not classified based on available information.

Components:**oxyclozanide:**

Remarks : Not classified due to lack of data.

oxfendazole:

Species : Rabbit
Result : No skin irritation

Magnesium stearate:

Species : Rabbit
Result : No skin irritation
Remarks : Based on data from similar materials

Serious eye damage/eye irritation

Not classified based on available information.

Components:**oxyclozanide:**

Remarks : Not classified due to lack of data.

oxfendazole:

Species : Rabbit
Result : No eye irritation

Magnesium stearate:

Species : Rabbit
Result : No eye irritation

Oxfendazole / Oxyclozanide Formulation

Version 4.0 Revision Date: 30.09.2023 SDS Number: 7942502-00007 Date of last issue: 04.04.2023
Date of first issue: 19.03.2021

||Remarks : Based on data from similar materials

Respiratory or skin sensitisation**Skin sensitisation**

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:**oxyclozanide:**

||Exposure routes : Dermal
||Remarks : Not classified due to lack of data.

Magnesium stearate:

||Test Type : Maximisation Test
||Exposure routes : Skin contact
||Species : Guinea pig
||Method : OECD Test Guideline 406
||Result : negative
||Remarks : Based on data from similar materials

Chronic toxicity**Germ cell mutagenicity**

Not classified based on available information.

Components:**oxyclozanide:**

||Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: Chromosomal aberration
Test system: Human lymphocytes
Result: positive

Test Type: Mouse Lymphoma
Result: positive

||Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Application Route: Oral
Result: negative

Test Type: unscheduled DNA synthesis assay
Species: Rat
Cell type: Liver cells
Application Route: Oral
Result: negative

Oxfendazole / Oxyclozanide Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
4.0	30.09.2023	7942502-00007	Date of first issue: 19.03.2021

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

oxfendazole:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Mouse
Application Route: Oral
Result: positive

Magnesium stearate:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Result: negative
Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative
Remarks: Based on data from similar materials

Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials

Carcinogenicity

Not classified based on available information.

Components:**oxyclozanide:**

Remarks : Not classified due to lack of data.

oxfendazole:

Species : Rat
Application Route : Oral
Exposure time : 1 Years
Symptoms : No adverse effects
Target Organs : Liver

Species : Rat
Application Route : Oral
Exposure time : 2 Years
Symptoms : No adverse effects
Target Organs : Liver

Oxfendazole / Oxyclozanide Formulation

Version 4.0 Revision Date: 30.09.2023 SDS Number: 7942502-00007 Date of last issue: 04.04.2023
 Date of first issue: 19.03.2021

Reproductive toxicity

May damage fertility. May damage the unborn child.

Components:**oxyclozanide:**

Effects on fertility	: Test Type: Two-generation reproduction toxicity study Species: Rat, male and female Application Route: Oral General Toxicity - Parent: NOAEL: 25 - 35 mg/kg body weight Symptoms: Reduced body weight, No effects on embryofoetal and postnatal development Result: No effects on fertility
	Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Oral General Toxicity - Parent: LOAEL: 75 - 100 mg/kg body weight Symptoms: Reduced body weight, No effects on embryofoetal and postnatal development Result: No effects on fertility
	Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Oral Early Embryonic Development: LOAEL: 75 - 100 mg/kg body weight Result: No fetotoxicity, No teratogenic effects
	Test Type: One-generation reproduction toxicity study Species: Rat Application Route: Oral General Toxicity - Parent: LOAEL: 80 - 160 mg/kg body weight Result: No fetotoxicity, No teratogenic effects, No effects on fertility
Effects on foetal development	: Test Type: Development Species: Rat Application Route: Oral Developmental Toxicity: NOAEL: 200 mg/kg body weight Result: No fetotoxicity, No teratogenic effects
	Test Type: Development Species: Rat Application Route: Oral General Toxicity Maternal: LOAEL: 100 mg/kg body weight Result: No fetotoxicity, No teratogenic effects
	Test Type: Development Species: Rabbit Application Route: Oral

Oxfendazole / Oxyclozanide Formulation

Version 4.0 Revision Date: 30.09.2023 SDS Number: 7942502-00007 Date of last issue: 04.04.2023
 Date of first issue: 19.03.2021

Developmental Toxicity: NOAEL: 32 mg/kg body weight
 Result: Fetotoxicity, Skeletal malformations

Reproductive toxicity - Assessment : Suspected of damaging the unborn child.

oxfendazole:

Effects on fertility : Test Type: Fertility/early embryonic development
 Species: Rat, male
 Application Route: Oral
 Fertility: NOAEL: 17 mg/kg body weight
 Target Organs: Testes
 Result: Effects on fertility

Test Type: Two-generation reproduction toxicity study
 Species: Rat
 Application Route: Oral
 Fertility: NOAEL: 0.9 mg/kg body weight
 Target Organs: Liver
 Result: No effects on fertility

Test Type: Fertility
 Species: Mouse
 Application Route: Oral
 Duration of Single Treatment: 1 Months
 Fertility: NOAEL: 750 mg/kg body weight
 Target Organs: Testes
 Result: Effects on fertility

Effects on foetal development : Test Type: Embryo-foetal development
 Species: Rat
 Application Route: Oral
 Developmental Toxicity: NOAEL: 10 mg/kg body weight
 Result: positive, Fetal effects

Test Type: Embryo-foetal development
 Species: Rat
 Developmental Toxicity: NOAEL: 10 mg/kg body weight
 Result: positive, Embryo-foetal toxicity

Test Type: Embryo-foetal development
 Species: Mouse
 Application Route: Oral
 Developmental Toxicity: NOAEL: 108 mg/kg body weight
 Result: positive, Embryo-foetal toxicity, foetal abnormalities

Test Type: Embryo-foetal development
 Species: Rabbit
 Application Route: Oral
 Developmental Toxicity: NOAEL: 0.625 mg/kg body weight

Reproductive toxicity - Assessment : Clear evidence of adverse effects on sexual function and fertility, based on animal experiments., Clear evidence of adverse

Oxfendazole / Oxyclozanide Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
4.0	30.09.2023	7942502-00007	Date of first issue: 19.03.2021

effects on development, based on animal experiments.

Magnesium stearate:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
 Species: Rat
 Application Route: Ingestion
 Method: OECD Test Guideline 422
 Result: negative
 Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
 Species: Rat
 Application Route: Ingestion
 Result: negative
 Remarks: Based on data from similar materials

STOT - single exposure

May cause damage to organs (Central nervous system) if swallowed.

Components:**oxyclozanide:**

Exposure routes : Oral
 Target Organs : Central nervous system
 Assessment : May cause damage to organs.

STOT - repeated exposure

May cause damage to organs (Liver, Testis, Brain) through prolonged or repeated exposure.

Components:**oxyclozanide:**

Target Organs : Brain, Liver
 Assessment : May cause damage to organs through prolonged or repeated exposure.

oxfendazole:

Exposure routes : Oral
 Target Organs : Liver, Testis
 Assessment : May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity**Components:****oxyclozanide:**

Species : Rat
 NOAEL : 9 mg/kg

Oxfendazole / Oxyclozanide Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
4.0	30.09.2023	7942502-00007	Date of first issue: 19.03.2021

LOAEL	: 44.5 mg/kg
Application Route	: Oral
Exposure time	: 3 Months
Target Organs	: Brain, Liver, spleen, Adrenal gland
Symptoms	: Liver effects

Species	: Dog
NOAEL	: 5 mg/kg
LOAEL	: 25 mg/kg
Application Route	: Oral
Exposure time	: 3 Months
Target Organs	: Brain, Liver
Symptoms	: blood effects, alteration in liver enzymes

oxfendazole:

Species	: Rat
NOAEL	: 11 mg/kg
Application Route	: Oral
Exposure time	: 2 Weeks
Target Organs	: Blood, Liver, Testis

Species	: Rat
NOAEL	: 3.8 mg/kg
Application Route	: Oral
Exposure time	: 3 Months
Target Organs	: Liver, Testis

Species	: Mouse
NOAEL	: 750 mg/kg
Application Route	: Oral
Exposure time	: 1 Months
Target Organs	: Liver

Species	: Mouse
NOAEL	: 37.5 mg/kg
Application Route	: Oral
Exposure time	: 3 Months
Target Organs	: Liver

Species	: Dog
NOAEL	: 6 mg/kg
Application Route	: Oral
Exposure time	: 1 Months
Remarks	: No significant adverse effects were reported

Species	: Dog
NOAEL	: 11 mg/kg
Application Route	: Oral
Exposure time	: 2 Weeks
Target Organs	: Lymph nodes, thymus gland

Species	: Dog
---------	-------

Oxfendazole / Oxyclozanide Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
4.0	30.09.2023	7942502-00007	Date of first issue: 19.03.2021

NOAEL	: 13.5 mg/kg
Application Route	: Oral
Exposure time	: 12 Months
Target Organs	: Liver

Starch, oxidized:

Species	: Rat
NOAEL	: 22,500 mg/kg
Application Route	: Ingestion
Exposure time	: 90 Days

Magnesium stearate:

Species	: Rat
NOAEL	: > 100 mg/kg
Application Route	: Ingestion
Exposure time	: 90 Days
Remarks	: Based on data from similar materials

Aspiration toxicity

Not classified based on available information.

Components:**oxyclozanide:**

Not applicable

Experience with human exposure**Components:****oxyclozanide:**

Ingestion	: Symptoms: May cause, Gastrointestinal disturbance, Central nervous system depression
-----------	--

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****oxyclozanide:**

Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 0.69 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
---	--

oxfendazole:

Toxicity to fish	: LC50 (Lepomis macrochirus (Bluegill sunfish)): > 2.7 mg/l Exposure time: 96 h
------------------	--

Oxfendazole / Oxyclozanide Formulation

Version 4.0 Revision Date: 30.09.2023 SDS Number: 7942502-00007 Date of last issue: 04.04.2023
Date of first issue: 19.03.2021

		LC50 (Oncorhynchus mykiss (rainbow trout)): > 2.5 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.059 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): > 4 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
		NOEC (Pseudokirchneriella subcapitata (green algae)): > 4 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.023 mg/l Exposure time: 21 d Method: OECD Test Guideline 211

Magnesium stearate:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): > 100 mg/l Exposure time: 48 h Method: DIN 38412 Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): > 1 mg/l Exposure time: 47 h Test substance: Water Accommodated Fraction Method: Directive 67/548/EEC, Annex V, C.2. Remarks: Based on data from similar materials No toxicity at the limit of solubility
Toxicity to algae/aquatic plants	:	EL50 (Pseudokirchneriella subcapitata (green algae)): > 1 mg/l Exposure time: 72 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 201 Remarks: Based on data from similar materials No toxicity at the limit of solubility
		NOELR (Pseudokirchneriella subcapitata (green algae)): > 1 mg/l Exposure time: 72 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 201 Remarks: Based on data from similar materials
Toxicity to microorganisms	:	EC10 (Pseudomonas putida): > 100 mg/l Exposure time: 16 h Test substance: Water Accommodated Fraction

Oxfendazole / Oxyclozanide Formulation

Version 4.0 Revision Date: 30.09.2023 SDS Number: 7942502-00007 Date of last issue: 04.04.2023
Date of first issue: 19.03.2021

Remarks: Based on data from similar materials

Persistence and degradability**Components:****oxyclozanide:**

Stability in water : Hydrolysis: 50 %(156 d)
Method: OECD Test Guideline 111

oxfendazole:

Stability in water : Hydrolysis: < 5 %(4 d)

Magnesium stearate:

Biodegradability : Result: Not biodegradable
Remarks: Based on data from similar materials

Bioaccumulative potential**Components:****oxyclozanide:**

Partition coefficient: n-octanol/water : log Pow: 3.99
pH: 7
Method: OECD Test Guideline 107

oxfendazole:

Partition coefficient: n-octanol/water : log Pow: 1.95

Magnesium stearate:

Partition coefficient: n-octanol/water : log Pow: > 4

Mobility in soil**Components:****oxyclozanide:**

Distribution among environmental compartments : log Koc: 4.83
Method: OECD Test Guideline 106

oxfendazole:

Distribution among environmental compartments : log Koc: 3.2

Other adverse effects

No data available

Oxfendazole / Oxyclozanide Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
4.0	30.09.2023	7942502-00007	Date of first issue: 19.03.2021

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

- | | | |
|------------------------|---|---|
| Waste from residues | : | Do not dispose of waste into sewer.
Dispose of in accordance with local regulations. |
| Contaminated packaging | : | Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product. |
-

SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

- | | | |
|---------------------------|---|--|
| UN number | : | UN 3077 |
| Proper shipping name | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S.
(oxfendazole, oxyclozanide) |
| Class | : | 9 |
| Packing group | : | III |
| Labels | : | 9 |
| Environmentally hazardous | : | yes |

IATA-DGR

- | | | |
|--|---|---|
| UN/ID No. | : | UN 3077 |
| Proper shipping name | : | Environmentally hazardous substance, solid, n.o.s.
(oxfendazole, oxyclozanide) |
| Class | : | 9 |
| Packing group | : | III |
| Labels | : | Miscellaneous |
| Packing instruction (cargo aircraft) | : | 956 |
| Packing instruction (passenger aircraft) | : | 956 |
| Environmentally hazardous | : | yes |

IMDG-Code

- | | | |
|----------------------|---|--|
| UN number | : | UN 3077 |
| Proper shipping name | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S.
(oxfendazole, oxyclozanide) |
| Class | : | 9 |
| Packing group | : | III |
| Labels | : | 9 |
| EmS Code | : | F-A, S-F |
| Marine pollutant | : | yes |

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations**ADG**

Oxfendazole / Oxyclozanide Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
4.0	30.09.2023	7942502-00007	Date of first issue: 19.03.2021

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(oxfendazole, oxyclozanide)
Class : 9
Packing group : III
Labels : 9
Hazchem Code : 2Z
Environmentally hazardous : yes

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.

SECTION 15. REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture**

Prohibition/Licensing Requirements : There is no applicable prohibition, authorisation and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations.

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

AICS : not determined
DSL : not determined
IECSC : not determined

SECTION 16: ANY OTHER RELEVANT INFORMATION**Further information**

Revision Date : 30.09.2023
Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Date format : dd.mm.yyyy

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

Oxfendazole / Oxyclozanide Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
4.0	30.09.2023	7942502-00007	Date of first issue: 19.03.2021

AU OEL : Australia. Workplace Exposure Standards for Airborne Contaminants.

ACGIH / TWA : 8-hour, time-weighted average

AU OEL / TWA : Exposure standard - time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; 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; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

AU / EN