

Levamisole (6.5%) / Oxyclozanide (13%) Formulation

Version Revision Date: SDS Number: Date of last issue: 16.05.2024 5.0 06.07.2024 10857713-00008 Date of first issue: 29.09.2022

Section 1: Identification

Product name Levamisole (6.5%) / Oxyclozanide (13%) Formulation

Other means of identification COOPERS NILZAN LV ORAL DRENCH (36089)

Manufacturer or supplier's details

MSD Company

Address 33 Whakatiki Street - Private Bag 908

Upper Hutt - New Zealand

Telephone 0800 800 543

0800 764 766 (0800 POISON) Emergency telephone number : 0800 243 622 (0800

CHEMCALL)

E-mail address EHSDATASTEWARD@msd.com

Recommended use of the chemical and restrictions on use

Recommended use Veterinary product Restrictions on use Not applicable

Section 2: Hazard identification

GHS Classification

Serious eye damage/eye irri-

tation

Category 1

Respiratory sensitisation Category 1

Skin sensitisation Category 1

Reproductive toxicity Category 2

Specific target organ toxicity -

single exposure (Oral)

Category 2 (Central nervous system)

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

repeated exposure

Specific target organ toxicity - :

repeated exposure (Oral)

Category 2 (Blood, Testis)

Hazardous to the aquatic Category 2



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environment - chronic hazard

GHS label elements

Hazard pictograms







Signal word : Danger

Hazard statements : H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H334 May cause allergy or asthma symptoms or breathing

difficulties if inhaled.

H361d Suspected of damaging the unborn child.

H371 May cause damage to organs (Central nervous system) if

swallowed.

H373 May cause damage to organs (Brain, Liver) through pro-

longed or repeated exposure.

H373 May cause damage to organs (Blood, Testis) through

prolonged or repeated exposure if swallowed. H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read

and understood.

P260 Do not breathe mist or vapours.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of

the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protec-

tion/ face protection.

P284 Wear respiratory protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.

P304 + P340 IF INHALED: Remove person to fresh air and

keep comfortable for breathing.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON

CENTER/ doctor.

P308 + P311 IF exposed or concerned: Call a POISON

CENTER/ doctor.

P333 + P313 If skin irritation or rash occurs: Get medical ad-

rice/ attention.

P342 + P311 If experiencing respiratory symptoms: Call a



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POISON CENTER/ doctor. P391 Collect spillage.

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

None known.

Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
oxyclozanide	2277-92-1	>= 10 -< 20
Silicic acid, aluminum salt	1335-30-4	>= 3 -< 10
levamisole hydrochloride	16595-80-5	>= 2.5 -< 10
Citric acid	77-92-9	>= 1 -< 10
Sodium metabisulphite	7681-57-4	>= 0.1 -< 1

Section 4: First-aid measures

General advice : In the case of accident or if you feel unwell, seek medical ad-

vice 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 : In case of contact, immediately flush eyes with plenty of water

for at least 15 minutes.

If easy to do, remove contact lens, if worn. Get medical attention immediately.

If swallowed : 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

May cause an allergic skin reaction.
Causes serious eye damage.

nd effects, both acute and Causes serious eye da

delayed May cause allergy or asthma symptoms or breathing difficul-



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ties if inhaled.

Suspected of damaging the unborn child. May cause damage to organs if swallowed.

May cause damage to organs through prolonged or repeated

exposure.

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).

Treat symptomatically and supportively. Notes to physician

Section 5: Fire-fighting measures

Suitable extinguishing media : Water spray

> Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical None known.

Unsuitable extinguishing

media

Specific hazards during fire-

fighting

Hazardous combustion prod-

ucts

Carbon oxides

Chlorine compounds Nitrogen oxides (NOx)

Specific extinguishing meth-

ods

Use extinguishing measures that are appropriate to local cir-

Exposure to combustion products may be a hazard to health.

cumstances 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 3Z

Section 6: Accidental release measures

Personal precautions, protec- : tive equipment and emer-

gency procedures

Use personal protective equipment.

Follow safe handling advice (see section 7) and personal pro-

tective equipment recommendations (see section 8).

Environmental precautions Avoid release to the environment.

Prevent further leakage or spillage if safe to do so.

Prevent spreading over a wide area (e.g. by containment or oil

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

Soak up with inert absorbent material.

For large spills, provide dyking or other appropriate contain-



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ment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent.

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 this provide to a second likely to the control of the control

mine 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 : See Engineering measures under EXPOSURE

CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : Use only with adequate ventilation. Advice on safe handling : Do not breathe mist or vapours.

Do not swallow. Do not get in eyes.

Avoid prolonged or repeated contact with skin.

Wash skin thoroughly after handling.

Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure as-

sessment

Keep container tightly closed.

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

use of administrative controls.

Conditions for safe storage : 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



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Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis		
oxyclozanide	2277-92-1	TWA	0.4 mg/m3 (OEB 2)	Internal		
levamisole hydrochloride	16595-80-5	TWA	20 μg/m3 (OEB 3)	Internal		
	Further inform	Further information: Skin				
		Wipe limit	200 μg/100 cm ²	Internal		
Sodium metabisulphite	7681-57-4	WES-TWA	5 mg/m3	NZ OEL		
	Further inform	Further information: Skin sensitiser, Respiratory sensitiser				
		TWA	5 mg/m3	ACGIH		

Engineering measures : Use appropriate engineering controls and manufacturing

technologies to control airborne concentrations (e.g., drip-

less quick connections).

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 con-

tainment devices). Minimize open handling.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or expo-

sure assessment demonstrates exposures outside the rec-

ommended guidelines, use respiratory protection.

Filter type

Hand protection

Particulates type

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,

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, dis-

posable suits) to avoid exposed skin surfaces.

Use appropriate degowning techniques to remove potentially

contaminated clothing.

Section 9: Physical and chemical properties

Appearance : suspension



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Colour : yellow

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 : No data available

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower :

flammability limit

No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : No data available

Solubility(ies)

Water solubility : No data available

Partition coefficient: n-

octanol/water

: Not applicable

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Not explosive



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Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : No data available

Particle characteristics

Particle size : Not applicable

Section 10: Stability and reactivity

Reactivity : Not classified as a reactivity hazard.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reac- : Can react with strong oxidizing agents.

tions

Conditions to avoid : None known. 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.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

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

Silicic acid, aluminum salt:

Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg

Method: OECD Test Guideline 423

Assessment: The substance or mixture has no acute oral tox-

icity

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg



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Remarks: Based on data from similar materials

levamisole hydrochloride:

Acute oral toxicity : LD50 (Rat): 180 mg/kg

LD50 (Mouse): 223 mg/kg

LD50 (Rabbit): 458 mg/kg

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Citric acid:

Acute oral toxicity : LD50 (Mouse): 5,400 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Sodium metabisulphite:

Acute oral toxicity : LD50 (Rat): 1,540 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 5.5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 402

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.

Silicic acid, aluminum salt:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

Remarks : Based on data from similar materials



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levamisole hydrochloride:

Remarks : No data available

Citric acid:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

Sodium metabisulphite:

Result : Skin irritation

Remarks : Based on national or regional regulation.

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

oxyclozanide:

Remarks : Not classified due to lack of data.

Silicic acid, aluminum salt:

Species : Chicken eye

Method : Chorioallantoic membrane vascularization assay

Result : Irreversible effects on the eye

levamisole hydrochloride:

Remarks : No data available

Citric acid:

Species : Rabbit

Result : Irritation to eyes, reversing within 21 days

Method : OECD Test Guideline 405

Sodium metabisulphite:

Species : Rabbit

Result : Irreversible effects on the eye Method : OECD Test Guideline 405

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.



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Respiratory sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Components:

oxyclozanide:

Exposure routes : Dermal

Remarks : Not classified due to lack of data.

Silicic acid, aluminum salt:

Test Type : Local lymph node assay (LLNA)

Exposure routes : Skin contact Species : Mouse

Method : OECD Test Guideline 429

Result : negative

levamisole hydrochloride:

Remarks : No data available

Sodium metabisulphite:

Assessment : Probability or evidence of skin sensitisation in humans

Remarks : Based on national or regional regulation.

Assessment : May cause sensitisation by inhalation. Remarks : Based on national or regional regulation.

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



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Test Type: unscheduled DNA synthesis assay

Species: Rat

Cell type: Liver cells Application Route: Oral Result: negative

Germ cell mutagenicity -

Assessment

Weight of evidence does not support classification as a germ

cell mutagen.

Silicic acid, aluminum salt:

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

Result: negative

Test Type: Chromosome aberration test in vitro

Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow

cytogenetic test, chromosomal analysis)

Species: Rat

Application Route: Ingestion

Result: negative

Remarks: Based on data from similar materials

levamisole hydrochloride:

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

Result: negative

Test Type: Chromosome aberration test in vitro

Result: negative

Citric acid:

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

Result: negative

Test Type: in vitro micronucleus test

Result: positive

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: Rat

Application Route: Ingestion

Result: negative

Sodium metabisulphite:



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

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Mouse

Application Route: Subcutaneous Method: OECD Test Guideline 474

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.

Silicic acid, aluminum salt:

Species : Rat
Application Route : Ingestion
Exposure time : 104 weeks
Result : negative

Remarks : Based on data from similar materials

levamisole hydrochloride:

Species : Mouse
Application Route : Oral
Exposure time : 2 Years

NOAEL : 80 mg/kg body weight

Remarks : No significant adverse effects were reported

Species : Rat
Application Route : Oral
Exposure time : 2 Years

NOAEL : 40 mg/kg body weight

Remarks : No significant adverse effects were reported

Sodium metabisulphite:

Species : Mouse
Application Route : Ingestion
Exposure time : 24 Months
Result : negative



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Remarks : Based on data from similar materials

Reproductive toxicity

Suspected of damaging 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 develop-

ment

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



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Test Type: Development

Species: Rabbit

Application Route: Oral

Developmental Toxicity: NOAEL: 32 mg/kg body weight

Result: Fetotoxicity, Skeletal malformations

Reproductive toxicity - As-

sessment

Suspected of damaging the unborn child.

Silicic acid, aluminum salt:

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Rat

Application Route: Ingestion

Result: negative

Remarks: Based on data from similar materials

levamisole hydrochloride:

Effects on fertility : Test Type: Three-generation reproduction toxicity study

Species: Rat

Application Route: Oral

Result: No significant adverse effects were reported

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Rat

Application Route: Oral

Developmental Toxicity: NOAEL: 20 mg/kg body weight

Result: Fetotoxicity

Test Type: Embryo-foetal development

Species: Rabbit Application Route: Oral

Developmental Toxicity: LOAEL: 40 mg/kg body weight

Result: Fetotoxicity

Reproductive toxicity - As-

sessment

Some evidence of adverse effects on development, based on

animal experiments.

Citric acid:

Effects on foetal develop-

ment

Test Type: One-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion

Result: negative

Sodium metabisulphite:

Effects on fertility : Test Type: Three-generation study

Species: Rat

Application Route: Ingestion

Result: negative



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Effects on foetal develop- : Test T

ment

Test Type: Embryo-foetal development

Species: Rabbit

Application Route: Ingestion

Result: negative

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.

Citric acid:

Assessment : May cause respiratory irritation.

STOT - repeated exposure

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

Components:

oxyclozanide:

Target Organs : Brain, Liver

Assessment : May cause damage to organs through prolonged or repeated

exposure.

levamisole hydrochloride:

Target Organs : Blood, Testis

Assessment : May cause damage to organs through prolonged or repeated

exposure.

Repeated dose toxicity

Components:

oxyclozanide:

Species : Rat

NOAEL : 9 mg/kg

LOAEL : 44.5 mg/kg

Application Route : Oral

Exposure time : 3 Months

Target Organs : Brain, Liver, spleen, Adrenal gland

Symptoms : Liver effects



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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

Silicic acid, aluminum salt:

Species : Rat

NOAEL : > 100 mg/kg
Application Route : Ingestion
Exposure time : 104 Weeks

Remarks : Based on data from similar materials

levamisole hydrochloride:

Species : Rat
NOAEL : 2.5 mg/kg
Application Route : Oral
Exposure time : 18 Months
Target Organs : Testis

Species : Dog
LOAEL : 20 mg/kg
Application Route : Oral
Exposure time : 18 Months
Target Organs : Blood

Species : Dog LOAEL : 40 mg/kg Application Route : Oral Exposure time : 3 Months

Citric acid:

Species : Rat

NOAEL : 4,000 mg/kg LOAEL : 8,000 mg/kg Application Route : Ingestion Exposure time : 10 Days

Sodium metabisulphite:

Species : Rat
NOAEL : 110 mg/kg
LOAEL : 220 mg/kg
Application Route : Ingestion
Exposure time : 104 Weeks



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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

levamisole hydrochloride:

Ingestion : Symptoms: Nausea, Vomiting, Headache, Dizziness, hypo-

tension

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

M-Factor (Acute aquatic tox-

city)

iic tox- .

M-Factor (Chronic aquatic

:

1

1

toxicity)

Silicic acid, aluminum salt:

Ecotoxicology Assessment

Chronic aquatic toxicity : No toxicity at the limit of solubility

levamisole hydrochloride:

Toxicity to fish : LC50 (Oryzias latipes (Japanese medaka)): 37.3 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 64 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202



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Version Revision Date: SDS Number: Date of last issue: 16.05.2024 5.0 06.07.2024 10857713-00008 Date of first issue: 29.09.2022

Citric acid:

Toxicity to fish LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 1,535 mg/l

Exposure time: 24 h

Sodium metabisulphite:

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)): 178 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 89 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Desmodesmus subspicatus (green algae)): 43.8 mg/l

Exposure time: 72 h

EC10 (Desmodesmus subspicatus (green algae)): 33.3 mg/l

Exposure time: 72 h

Toxicity to fish (Chronic tox-

icity)

NOEC (Danio rerio (zebra fish)): >= 316 mg/l

Exposure time: 34 d

Method: OECD Test Guideline 210

Remarks: Based on data from similar materials

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): >= 10 mg/l

Exposure time: 21 d

EC10 (Pseudomonas putida): 30.8 mg/l Toxicity to microorganisms

Exposure time: 17 h

Persistence and degradability

Components:

oxyclozanide:

Stability in water Hydrolysis: 50 %(156 d)

Method: OECD Test Guideline 111

Citric acid:

Biodegradability Result: Readily biodegradable.

> Biodegradation: 97 % Exposure time: 28 d

Method: OECD Test Guideline 301B



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Bioaccumulative potential

Components:

oxyclozanide:

Partition coefficient: nlog Pow: 3.99

octanol/water pH: 7

Method: OECD Test Guideline 107

Citric acid:

Partition coefficient: n-

log Pow: -1.72 octanol/water

Mobility in soil

Components:

oxyclozanide:

Distribution among environ-

log Koc: 4.83

mental compartments Method: OECD Test Guideline 106

Other adverse effects

No data available

Section 13: Disposal considerations

Disposal methods

Waste from residues Do not dispose of waste into sewer.

Dispose of in accordance with local regulations.

Empty containers should be taken to an approved waste han-Contaminated packaging

dling site for recycling or disposal.

If not otherwise specified: Dispose of as unused product.

Section 14: Transport information

International Regulations

UNRTDG

UN number UN 3082

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(oxyclozanide)

Class 9 Ш Packing group Labels 9 Environmentally hazardous yes

IATA-DGR

UN/ID No.

Proper shipping name Environmentally hazardous substance, liquid, n.o.s.



Levamisole (6.5%) / Oxyclozanide (13%) Formulation

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(oxyclozanide)

Class : 9 Packing group : III

Labels : Miscellaneous

Packing instruction (cargo : 964

aircraft)

Packing instruction (passen- : 964

ger aircraft)

Environmentally hazardous : yes

IMDG-Code

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(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

NZS 5433

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(oxyclozanide)

Class : 9
Packing group : III
Labels : 9
Hazchem Code : 3Z
Marine pollutant : no

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

HSNO Approval Number

HSR100759 Veterinary Medicines Non dispersive Open System Application Group Standard



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Tolerable Exposure Limits (TEL)

Not applicable

Environmental Exposure Limits (EEL)

Not applicable

HSW Controls

Certified handler certificate not required.

Tracking hazardous substance not required.

Refer to the Health and Safety at Work (Hazardous Substances) Regulations 2017, for further in-

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

AICS not determined

DSL not determined

IECSC not determined

Section 16: Other information

Revision Date 06.07.2024

Further information

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 Agen-

cy, 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)

NZ OEL New Zealand. Workplace Exposure Standards for Atmospher-

ic Contaminants

ACGIH / TWA 8-hour, time-weighted average

NZ OEL / WES-TWA Workplace Exposure Standard - Time Weighted average

AllC - 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 con-



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centration; 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.

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