SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

Oxfendazole / Oxyclozanide Formulation

SECTION 1. IDENTIFICATION

Product name: Oxfendazole / Oxyclozanide Formulation

Manufacturer or supplier's details
Company name of supplier: Merck & Co., Inc
Address: 126 E. Lincoln Avenue
Rahway, New Jersey U.S.A. 07065
Telephone: 908-740-4000
Emergency telephone: 1-908-423-6000
E-mail address: EHSDATASTEWARD@merck.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 in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

- Combustible dust
- 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: If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.
- 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.
- P202 Do not handle until all safety precautions have been read
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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxyclozanide</td>
<td>2277-92-1</td>
<td>48</td>
</tr>
<tr>
<td>oxfendazole</td>
<td>53716-50-0</td>
<td>24</td>
</tr>
<tr>
<td>Starch, oxidized</td>
<td>65996-62-5</td>
<td>16.7216</td>
</tr>
<tr>
<td>Magnesium stearate</td>
<td>557-04-0</td>
<td>1.392</td>
</tr>
</tbody>
</table>

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.
Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention.
Rinse mouth thoroughly with water.

Other hazards
Dust contact with the eyes can lead to mechanical irritation.
Contact with dust can cause mechanical irritation or drying of the skin.
Most important symptoms and effects, both acute and delayed: Never give anything by mouth to an unconscious person. 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. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
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 (NOx)
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 fire-fighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

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. 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: Sweep up or vacuum up spillage and collect in suitable
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### 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.

**Conditions for safe storage**: Keep in properly labeled 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, Self-reactive substances and mixtures, Organic peroxides, Explosives, Gases.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ingredients with workplace control parameters**
## Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxyclozanide</td>
<td>2277-92-1</td>
<td>TWA</td>
<td>0.4 mg/m³ (OEB 2)</td>
<td>Internal</td>
</tr>
<tr>
<td>oxfendazole</td>
<td>53716-50-0</td>
<td>TWA</td>
<td>40 µg/m³ (OEB 3)</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wipe limit</td>
<td>400 µg/100 cm²</td>
<td>Internal</td>
</tr>
<tr>
<td>Starch, oxidized</td>
<td>65996-62-5</td>
<td>TWA (inhalable dust)</td>
<td>0.5 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Magnesium stearate</td>
<td>557-04-0</td>
<td>TWA (Inhalable particulate matter)</td>
<td>10 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable particulate matter)</td>
<td>3 mg/m³</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

**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: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where
concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

- Material: Chemical-resistant gloves
- Remarks: Consider double gloving.

Eye protection

- Material: Chemical-resistant glasses with side shields or goggles.
- Remarks: 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

- Material: Work uniform or laboratory coat.
- Remarks: 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.

Hygiene measures

- Material: 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.

SECTON 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: powder
- Color: white to off-white, light cream, cream
- Odor: No data available
- Odor 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

### Vapor pressure
: Not applicable

### Relative vapor density
: Not applicable

### Relative density
: No data available

### Density
: 0.88 g/cm³

### Water solubility
: No data available

### Partition coefficient: n-octanol/water
: Not applicable

### Autoignition temperature
: No data available

### Decomposition temperature
: No data available

### Viscosity
: 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

Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity
Not classified based on available information.

Product:
Acute oral toxicity: Acute toxicity estimate: > 5,000 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

oxfendazole:
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
Remarks : Based on data from similar materials

Respiratory or skin sensitization
Skin sensitization
Not classified based on available information.

Respiratory sensitization
Not classified based on available information.

Components:
Oxyclozanide:
Routes of exposure : Dermal
Remarks : Not classified due to lack of data.

Magnesium stearate:
Test Type : Maximization Test
Routes of exposure : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : negative
Remarks : Based on data from similar materials
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

Genotoxicity in vivo - Assessment:
Weight of evidence does not support classification as a germ cell mutagen.

Oxendazole:
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.

Oxyclozanide:
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

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

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 embryofetal 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 embryofetal 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.

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

Effects on fetal development  

Reproductive toxicity - Assessment  

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 fetal development:
- Test Type: Embryo-fetal development
  Species: Rat
  Application Route: Oral
  Developmental Toxicity: NOAEL: 10 mg/kg body weight
  Result: positive, Embryo-fetal toxicity.

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

- Test Type: Embryo-fetal 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 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 fetal development:
  Test Type: Embryo-fetal 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:
Routes of exposure: Oral
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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:
Routes of exposure: 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
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
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<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date:</th>
<th>SDS Number:</th>
<th>Date of last issue:</th>
<th>Date of first issue:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>09/30/2023</td>
<td>7942487-00007</td>
<td>04/04/2023</td>
<td>03/19/2021</td>
</tr>
</tbody>
</table>

**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
**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:**
- Toxicty 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
  - 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

**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
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
  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
octanol/water

**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

### SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**
- Waste from residues: Dispose of in accordance with local regulations. Do not dispose of waste into sewer.
- 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 (passen-
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Date of first issue: 03/19/2021

- 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.

Domestic regulation

49 CFR
- UN/ID/NA number: UN 3077
- Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (oxfendazole, Oxyclozanide)
- Class: 9
- Packing group: III
- Labels: CLASS 9
- ERG Code: 171
- Marine pollutant: yes (oxfendazole, Oxyclozanide)
- Remarks: Above applies only to containers over 119 gallons or 450 liters. Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

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

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards: Combustible dust
- Reproductive toxicity
- Specific target organ toxicity (single or repeated exposure)
SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

Oxfendazole / Oxyclozanide Formulation

Version 3.1 Revision Date: 09/30/2023 SDS Number: 7942487-00007 Date of last issue: 04/04/2023 Date of first issue: 03/19/2021

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right To Know
Oxyclozanide 2277-92-1
Oxfendazole 53716-50-0
Starch, oxidized 65996-62-5
Polyvinyl pyrrolidone 9003-39-8

California List of Hazardous Substances
Polyvinyl pyrrolidone 9003-39-8

California Permissible Exposure Limits for Chemical Contaminants
Starch, oxidized 65996-62-5
Magnesium stearate 557-04-0

The ingredients of this product are reported in the following inventories:
AICS: not determined
DSL: not determined
IECSC: not determined

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Health</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

HMIS® IV:

<table>
<thead>
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<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations
SAFETY DATA SHEET  
according to the OSHA Hazard Communication Standard

Oxfendazole / Oxyclozanide Formulation

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ACGIH  : USA. ACGIH Threshold Limit Values (TLV)  
CAL PEL  : California permissible exposure limits for chemical contaminants (Title 8, Article 107)  
OSHA Z-3  : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts  
ACGIH / TWA  : 8-hour, time-weighted average  
CAL PEL / PEL  : Permissible exposure limit  
OSHA Z-3 / TWA  : 8-hour time weighted average


Revision Date: 09/30/2023

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.

US / Z8