Florfenicol (with Triacetin) Liquid Formulation

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Florfenicol (with Triacetin) Liquid Formulation

Manufacturer or supplier’s details

Company: MSD
Address: No. 485 Jing Tai Road
Pu Tuo District - Shanghai - China 200331
Telephone: 908-740-4000
Emergency telephone number: 86-571-87268110
E-mail address: EHSDATASTEWARD@msd.com

Recommended use of the chemical and restrictions on use

Recommended use: Veterinary product

2. HAZARDS IDENTIFICATION

Emergency Overview

| Appearance | liquid |
| Colour | yellow |
| Odour | No data available |

Causes serious eye irritation. May damage fertility. May damage the unborn child. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

GHS Classification

- Serious eye damage/eye irritation: Category 2A
- Reproductive toxicity: Category 1B
- Specific target organ toxicity - repeated exposure: Category 1
- Short-term (acute) aquatic hazard: Category 1
- Long-term (chronic) aquatic hazard: Category 1

GHS label elements

Hazard pictograms
Signal word : Danger

Hazard statements : H319 Causes serious eye irritation.
H360FD May damage fertility. May damage the unborn child. 
H372 Causes damage to organs through prolonged or repeated exposure. 
H410 Very 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. 
P273 Avoid release to the environment. 
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. 
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 
P308 + P313 IF exposed or concerned: Get medical advice/ attention. 
P337 + P313 IF eye irritation persists: Get medical advice/ attention. 
P391 Collect spillage. 
Storage:
P405 Store locked up. 
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Physical and chemical hazards
Not classified based on available information.

Health hazards
Causes serious eye irritation. May damage fertility. May damage the unborn child. Causes damage to organs through prolonged or repeated exposure.

Environmental hazards
Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Other hazards which do not result in classification
None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components
Florfenicol (with Triacetin) Liquid Formulation

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: 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.

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

Most important symptoms and effects, both acute and delayed:
Causes serious eye irritation.
May damage fertility. May damage the unborn child.
Causes 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).

Notes to physician: Treat symptomatically and supportively.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media: None known.

Specific hazards during firefighting: Exposure to combustion products may be a hazard to health.

Hazardous combustion products: Carbon oxides
Nitrogen oxides (NOx)

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.
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6. ACCIDENTAL RELEASE MEASURES

| Personal precautions, protective equipment and emergency procedures | Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations. |
| Environmental precautions | Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). 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 dyeing or other appropriate containment to keep material from spreading. If dyed 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 which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements. |

7. HANDLING AND STORAGE

Handling

Technical measures: See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

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 vapours or spray mist. Do not swallow. Do not get in eyes. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment. Keep container tightly closed. Take care to prevent spills, waste and minimize release to the environment.

Avoidance of contact: Oxidizing agents

Storage

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

Packaging material:
Unsuitable material: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</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>Florfenicol</td>
<td>73231-34-2</td>
<td>TWA</td>
<td>100 µg/m³ (OEB 2)</td>
<td>Internal</td>
</tr>
</tbody>
</table>

Engineering measures:
Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., dripless 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.
Laboratory operations do not require special containment.

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:
Combined particulates and organic vapour type

Eye/face 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.

Hand protection:
Material: Chemical-resistant gloves

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.
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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>yellow</td>
</tr>
<tr>
<td>Odour</td>
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</tr>
<tr>
<td>Odour Threshold</td>
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<tr>
<td>pH</td>
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</tr>
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<td>Melting point/freezing point</td>
<td>No data available</td>
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<td>Initial boiling point and boiling</td>
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<tr>
<td>range</td>
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<tr>
<td>Flash point</td>
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<tr>
<td>Evaporation rate</td>
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<td>Flammability (solid, gas)</td>
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<td>Flammability (liquids)</td>
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<td>Upper explosion limit / Upper</td>
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<tr>
<td>flammability limit</td>
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<tr>
<td>Lower explosion limit / Lower</td>
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</tr>
<tr>
<td>flammability limit</td>
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</tr>
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<td>Vapour pressure</td>
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<tr>
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<td>Density</td>
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<td>Solubility(ies)</td>
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<td>Water solubility</td>
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<td>Partition coefficient: n-octanol/water</td>
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<td>Auto-ignition temperature</td>
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<tr>
<td>Decomposition temperature</td>
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<td>Viscosity</td>
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<tr>
<td>Viscosity, kinematic</td>
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<td>Explosive properties</td>
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<tr>
<td>Oxidizing properties</td>
<td>The substance or mixture is not classified as oxidizing.</td>
</tr>
<tr>
<td>Particle size</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
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10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions: Can react with strong oxidizing agents.
Conditions to avoid: None known.
Incompatible materials: Oxidizing agents
Hazardous decomposition products: No hazardous decomposition products are known.

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: > 5,000 mg/kg
Method: Calculation method

Components:

2-Pyrrolidone:
Acute oral toxicity: LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity: LD50 (Rabbit): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Florfenicol:
Acute oral toxicity: LD50 (Rat): > 2,000 mg/kg
LD50 (Mouse): > 2,000 mg/kg
LD50 (Dog): > 1,280 mg/kg

Acute inhalation toxicity: LC50 (Rat): > 0.28 mg/l
Exposure time: 4 h

Acute dermal toxicity: Remarks: No data available

Acute toxicity (other routes of administration): LD50 (Rat): 1,913 - 2,253 mg/kg
Application Route: Intraperitoneal
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LD50 (Mouse): 100 mg/kg
Application Route: Intravenous

Skin corrosion/irritation
Not classified based on available information.

Components:

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

Florfenicol:
Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation
Causes serious eye irritation.

Components:

2-Pyrrolidone:
Result: Irritation to eyes, reversing within 21 days
Remarks: Based on the Catalogue of Hazardous Chemicals of China

Florfenicol:
Species: Rabbit
Result: Mild eye irritation

Respiratory or skin sensitisation

Skin sensitisation
Not classified based on available information.

Respiratory sensitisation
Not classified based on available information.

Components:

2-Pyrrolidone:
Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Method: OECD Test Guideline 429
Result: negative
Remarks: Based on data from similar materials

Florfenicol:
Test Type: Maximisation Test
Species: Guinea pig
Result: negative

Germ cell mutagenicity
Not classified based on available information.

Components:

2-Pyrrolidone:
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
Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Genotoxicity in vivo:
Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: negative

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

Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Test system: rat hepatocytes
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Result: negative

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Result: positive

Genotoxicity in vivo: Test Type: Micronucleus test
Species: Mouse
Cell type: Bone marrow
Application Route: Oral
Result: negative
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Carcinogenicity
Not classified based on available information.

Components:
2-Pyrrolidone:
- Species: Mouse
- Application Route: Ingestion
- Exposure time: 18 month(s)
- Result: negative
- Remarks: Based on data from similar materials

Florfenicol:
- Species: Rat
- Application Route: oral (gavage)
- Exposure time: 2 Years
- Result: negative
- Target Organs: Liver, Testes

Reproductive toxicity
May damage fertility. May damage the unborn child.

Components:
2-Pyrrolidone:
- Effects on fertility: Test Type: One-generation reproduction toxicity study
  Species: Rat
  Application Route: Ingestion
  Result: positive
  Remarks: Based on data from similar materials

- Effects on foetal development: Test Type: Embryo-foetal development
  Species: Rat
  Application Route: Ingestion
  Result: positive

- 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.

Florfenicol:
- Effects on fertility: Test Type: Two-generation reproduction toxicity study
  Species: Rat
  Application Route: Oral
  Fertility: LOAEL: 12 mg/kg body weight
  Result: decreased pup survival, reduced lactation
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Effects on foetal development:
- Test Type: Embryo-foetal development
- Species: Rat
- General Toxicity Maternal: NOAEL: 4 mg/kg body weight
- Embryo-foetal toxicity: LOAEL: 40 mg/kg body weight
- Result: No teratogenic effects, Fetotoxicity
- Remarks: The effects were seen only at maternally toxic doses.

Test Type: Embryo-foetal development
- Species: Mouse
- Application Route: oral (gavage)
- General Toxicity Maternal: NOAEL: 120 mg/kg body weight
- Embryo-foetal toxicity: LOAEL: 40 mg/kg body weight
- Result: Fetotoxicity

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

STOT - single exposure:
- Not classified based on available information.

STOT - repeated exposure:
- Causes damage to organs through prolonged or repeated exposure.

Components:

Florfenicol:
- Target Organs: Liver, Brain, Testis, Spinal cord, Blood, gallbladder
- Assessment: Causes damage to organs through prolonged or repeated exposure.

Repeated dose toxicity:

Components:

2-Pyrrolidone:
- Species: Rat
- NOAEL: 207 mg/kg
- Application Route: Ingestion
- Exposure time: 3 Months
- Method: OECD Test Guideline 408

Florfenicol:
- Species: Dog
- NOAEL: 3 mg/kg
- Exposure time: 13 Weeks
- Target Organs: Liver, Testis, Brain, Spinal cord

- Species: Mouse
- NOAEL: 200 mg/kg
Exposure time : 13 Weeks
Target Organs  : Liver, Testis

Species        : Rat
NOAEL          : 30 mg/kg
Exposure time  : 13 Weeks
Target Organs  : Liver, Testis

Species        : Dog
NOAEL          : 3 mg/kg
LOAEL          : 12 mg/kg
Exposure time  : 52 Weeks
Target Organs  : Liver, gallbladder

Species        : Rat
NOAEL          : 1 mg/kg
LOAEL          : 3 mg/kg
Exposure time  : 52 Weeks
Target Organs  : Testis

Aspiration toxicity
Not classified based on available information.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

2-Pyrrolidone:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 4,600 - 10,000 mg/l
                    Exposure time: 96 h
                    Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 500 mg/l
                                                        Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): > 500 mg/l
                                         Exposure time: 72 h
                                         EC10 (Desmodesmus subspicatus (green algae)): 22.2 mg/l
                                         Exposure time: 72 h

Toxicity to microorganisms : EC50: > 1,000 mg/l
                             Exposure time: 30 min
                             Method: OECD Test Guideline 209

Florfenicol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): > 830 mg/l
                   Exposure time: 96 h
                   Method: FDA 4.11
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according to GB/T 16483 and GB/T 17519

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**Revision Date:** 2019/12/12  
**SDS Number:** 898712-00010  
**Date of last issue:** 2019/09/13  
**Date of first issue:** 2016/09/16

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**Toxicity to daphnia and other aquatic invertebrates**

- **LC50 (Oncorhynchus mykiss (rainbow trout))**: > 780 mg/l  
  Exposure time: 96 h  
  Method: FDA 4.11

**Toxicity to algae/aquatic plants**

- **EC50 (Daphnia magna (Water flea))**: > 330 mg/l  
  Exposure time: 48 h  
  Method: OECD Test Guideline 202

- **NOEC (Pseudokirchneriella subcapitata (green algae))**: 2.9 mg/l  
  Exposure time: 14 d  
  Method: FDA 4.01

- **IC50 (Skeletonema costatum (marine diatom))**: 0.0336 mg/l  
  Exposure time: 72 h  
  Method: ISO 10253

- **NOEC (Skeletonema costatum (marine diatom))**: 0.00423 mg/l  
  Exposure time: 72 h  
  Method: ISO 10253

- **EC50 (Lemna gibba (gibbous duckweed))**: 0.76 mg/l  
  Exposure time: 7 d  
  Method: OECD Test Guideline 221

- **NOEC (Lemna gibba (gibbous duckweed))**: 0.39 mg/l  
  Exposure time: 7 d  
  Method: OECD Test Guideline 221

- **EC50 (Navicula pelliculosa (Freshwater diatom))**: 61 mg/l  
  Exposure time: 72 h  
  Method: OECD Test Guideline 201

- **NOEC (Navicula pelliculosa (Freshwater diatom))**: 19 mg/l  
  Exposure time: 72 h  
  Method: OECD Test Guideline 201

- **EC50 (Anabaena flos-aquae)**: 0.066 mg/l  
  Exposure time: 72 h  
  Method: OECD Test Guideline 201

- **NOEC (Anabaena flos-aquae)**: 0.051 mg/l  
  Exposure time: 72 h  
  Method: OECD Test Guideline 201

**NOEC (Pimephales promelas (fathead minnow))**: 5.5 mg/l  
Exposure time: 32 d

**M-Factor (Acute aquatic toxicity)**: 10

**Toxicity to fish (Chronic toxicity)**: NOEC (Pimephales promelas (fathead minnow))
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Method: OECD Test Guideline 210

<table>
<thead>
<tr>
<th>Persistence and degradability</th>
</tr>
</thead>
</table>

**Components:**

2-Pyrrolidone:

Biodegradability: Result: Readily biodegradable.
Remarks: Based on data from similar materials

Bioaccumulative potential

**Components:**

2-Pyrrolidone:

Partition coefficient: n-octanol/water: log Pow: -0.71
Method: OECD Test Guideline 107

Florfenicol:

Partition coefficient: n-octanol/water: log Pow: 0.373

Mobility in soil
No data available

Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues: 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.

14. TRANSPORT INFORMATION

International Regulations

**UNRTDG**

UN number: UN 3082
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Florfenicol)
Class: 9
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Packing group: III  Labels: 9

IATA-DGR
UN/ID No.: UN 3082  Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Florfenicol)
Class: 9  Packing group: III  Labels: Miscellaneous  Packing instruction (cargo aircraft): 964  Packing instruction (passenger aircraft): 964

Environmentally hazardous: yes

IMDG-Code
UN number: UN 3082  Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Florfenicol)
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

GB 6944/12268
UN number: UN 3082  Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Florfenicol)
Class: 9  Packing group: III  Labels: 9

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.

15. REGULATORY INFORMATION

National regulatory information
Law on the Prevention and Control of Occupational Diseases

The components of this product are reported in the following inventories:
AICS: not determined
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16. OTHER INFORMATION

Further information

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

Date format: yyyy/mm/dd

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; 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; 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
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Disclaimer
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.

CN / EN