

SAFETY DATA SHEETS

This SDS packet was issued with item:

078911019

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

078916288 078916931 078926165 078926166 078926167 078935415 078935417



SAFETY DATA SHEET

1. Identification

Product identifier Cheristin for cats

Other means of identification

Item Code CA4590

Recommended use Insecticide

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Elanco Animal Health
2500 Innovation Way
Greenfield, IN 46140
US

Phone: 1-877-Elanco1 (1-877-352-6261)

Email: lilly_msds@lilly.com

Emergency Telephone Numbers: Elanco Product Technical Support / Human or Animal Exposure Reporting:
1-888-545-5973

Transportation Emergency Telephone: CHEMTREC: 1-800-424-9300
(Outside U.S. 1-703-527-3887)

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Serious eye damage/eye irritation Category 2B

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word Warning

Hazard statement

H320 Causes eye irritation.

Precautionary statement

Prevention

P264 Wash hands thoroughly after handling.

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.

P337 + P313 If eye irritation persists: Get medical advice/attention.

Storage Not available.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|---------------|--------------------------|-------------|------|
| Spinetoram | | 935545-74-7 | 11.2 |

Material name: Cheristin for cats

4316 Version #: 02 Revision date: 09-21-2017 Issue date: 12-17-2014

SDS US

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| Chemical name | Common name and synonyms | CAS number | % |
|---------------------|--------------------------|------------|----|
| Benzyl Alcohol | | 100-51-6 | 18 |
| Propylene Carbonate | | 108-32-7 | 69 |

Composition comments Spinetoram is a mixture of the following components: Spinetoram J (CAS# 187166-40-1) and Spinetoram L (CAS# 187166-15-0)

Remaining components of this product are non-hazardous and/or are present at concentrations below reportable levels.

4. First-aid measures

Inhalation Remove to fresh air. Oxygen or artificial respiration if needed. Call a physician or poison control center immediately.

Skin contact Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur.

Eye contact In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Ingestion If conscious, give the victim plenty of water to drink. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention immediately.

Most important symptoms/effects, acute and delayed Eye irritation.

General information In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Keep victim warm.

5. Fire-fighting measures

Suitable extinguishing media Water. Carbon dioxide (CO2). Dry chemical.

Unsuitable extinguishing media Not available.

Specific hazards arising from the chemical Not applicable.

Special protective equipment and precautions for firefighters Wear self-contained breathing apparatus and protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures See Section 8 of the SDS for Personal Protective Equipment.

Methods and materials for containment and cleaning up Use absorbent/adsorbent material to solidify liquids. Solidification may not suppress vapors. Vacuuming liquids or solidified material may disperse vapors. Large spills due to traffic accidents, etc., should be reported immediately to CHEMTREC and Elanco Animal Health for assistance.

Environmental precautions Prevent spilled material from flowing onto adjacent land or into streams, ponds, or lakes.

7. Handling and storage

Precautions for safe handling Avoid contact with eyes, skin, and clothing. Avoid breathing mists or vapors. Wash hands thoroughly after handling. Use personal protection recommended in Section 8 of the SDS.

Conditions for safe storage, including any incompatibilities Keep container tightly closed in a dry and well-ventilated place.

8. Exposure controls/personal protection

Occupational exposure limits

US. Workplace Environmental Exposure Level (WEEL) Guides

| Components | Type | Value |
|-------------------------------|------|------------|
| Benzyl Alcohol (CAS 100-51-6) | TWA | 44.2 mg/m3 |
| | | 10 ppm |

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Use appropriate control measures such as fume hood, ventilated enclosure, isolator (eg. glovebag, glovebox), or closed material transfer systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear goggles/face shield.

| | |
|---------------------------------------|---|
| Skin protection | |
| Hand protection | Chemical-resistant gloves and impermeable body covering to minimize skin contact. |
| Other | Chemical-resistant gloves and impermeable body covering to minimize skin contact. |
| Respiratory protection | Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the respirator. Use an approved respirator. Select appropriate respirator for physical characteristics of material. Select respirator with appropriate protection factor. |
| Thermal hazards | Not applicable. |
| General hygiene considerations | <p>In a manufacturing setting, wear chemical-resistant gloves and body covering to minimize skin contact. If handled in a ventilated enclosure, as in a laboratory setting, respirator and goggles or face shield may not be required. Safety glasses are always required.</p> <p>When mixing and handling, use protective clothing, impervious gloves, and dust respirator (recommended). Operators should wash thoroughly with soap and water after handling. If accidental eye contact occurs, immediately rinse with plenty of water.</p> <p>Under normal use and handling conditions, wear goggles to protect eyes and wear impermeable gloves and protective equipment to avoid direct contact with skin. Wash thoroughly with soap and water after handling.</p> |

9. Physical and chemical properties

Appearance

| | |
|--|---|
| Physical state | Liquid. |
| Form | Liquid. |
| Color | Light yellow. |
| Odor | Earthy |
| Odor threshold | Not available. |
| pH | 6.5 (1% aqueous solution) |
| Melting point/freezing point | No data available. |
| Initial boiling point and boiling range | No data available. |
| Flash point | 232.0 °F (111.1 °C) Pensky-Martens Closed Cup |
| Evaporation rate | No data available. |
| Flammability (solid, gas) | Not available. |

Upper/lower flammability or explosive limits

| | |
|---------------------------------------|--------------------|
| Flammability limit - lower (%) | No data available. |
| Flammability limit - upper (%) | No data available. |
| Explosive limit - lower (%) | No data available. |
| Explosive limit - upper (%) | No data available. |

| | |
|-------------------------|--------------------|
| Vapor pressure | No data available. |
| Vapor density | No data available. |
| Relative density | No data available. |

Solubility(ies)

| | |
|--|--------------------|
| Solubility (water) | No data available. |
| Partition coefficient (n-octanol/water) | No data available. |
| Auto-ignition temperature | No data available. |
| Decomposition temperature | Not available. |

| | |
|------------------|----------------------------|
| Viscosity | 3.3 cP 40 C 5.8 cP 20 C |
|------------------|----------------------------|

Other information

| | |
|-----------------------------|--|
| Density | No data available. |
| Explosive properties | Not explosive. |
| Oxidizing properties | The substance or mixture is not classified as oxidizing. |

Specific gravity 1.162 g/mL

10. Stability and reactivity

| | |
|------------------------------------|---|
| Reactivity | Not water reactive. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | Hazardous polymerization does not occur. |
| Conditions to avoid | Avoid temperatures exceeding the flash point. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | Hazardous decomposition products formed under fire conditions.. |

11. Toxicological information

Information on toxicological effects

Acute toxicity

| Components | Species | Test Results |
|---|---|-----------------------------|
| Benzyl Alcohol (CAS 100-51-6) | | |
| <u>Acute</u> | | |
| Dermal | | |
| LD50 | Rabbit | 2000 mg/kg |
| Inhalation | | |
| LD50 | Rat | > 4178 mg/m3, 4 hr |
| Oral | | |
| LD50 | Rabbit | 1940 mg/kg |
| Propylene Carbonate (CAS 108-32-7) | | |
| <u>Acute</u> | | |
| Dermal | | |
| LD50 | | > 2000 mg/kg (no mortality) |
| Oral | | |
| LD50 | | > 5000 mg/kg (no mortality) |
| Spinetoram (CAS 935545-74-7) | | |
| <u>Acute</u> | | |
| Dermal | | |
| LD | Rabbit | > 5000 mg/kg |
| Inhalation | | |
| LC50 | Rat | > 5.44 mg/l, 4 h |
| Oral | | |
| LD | Rat | > 5000 mg/kg |
| Skin corrosion/irritation | Rabbit: Slight irritation. (similar substance) Based on available data, the classification criteria are not met. | |
| Serious eye damage/eye irritation | Rabbit: Irritating. | |
| Respiratory or skin sensitization | | |
| Respiratory sensitization | Due to lack of data the classification is not possible. | |
| Skin sensitization | Guinea pig: Not a skin sensitizer. (similar substance) Based on available data, the classification criteria are not met. | |
| Germ cell mutagenicity | Result in genetic toxicity assays (in vitro and in vivo): Negative (Spinetoram, Propylene Carbonate) Based on available data, the classification criteria are not met. | |
| Carcinogenicity | No effects identified in animal studies. (Spinetoram, Propylene Carbonate) Based on available data, the classification criteria are not met. | |
| IARC Monographs. Overall Evaluation of Carcinogenicity | | |
| Not listed. | | |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) | | |
| Not regulated. | | |

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

| | |
|---|--|
| Reproductive toxicity | In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. (Spinetoram, Benzyl Alcohol) Based on available data, the classification criteria are not met. |
| Specific target organ toxicity - single exposure | No significant target organ toxicity reported. (Spinetoram) Based on available data, the classification criteria are not met. |
| Specific target organ toxicity - repeated exposure | No significant target organ toxicity reported. (Spinetoram, Propylene Carbonate) Based on available data, the classification criteria are not met. |
| Aspiration hazard | Not available. |
| Further information | Animal studies have reported the following effects: Liver effects. Kidney effects. Bone marrow changes. Information given is based on data obtained from similar substances. |

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

| Components | Species | | Test Results |
|---|--|---|--|
| Benzyl Alcohol (CAS 100-51-6) | | | |
| Aquatic | | | |
| Acute | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 230 mg/l, 48 hr |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | 460 mg/l, 96 hours |
| Propylene Carbonate (CAS 108-32-7) | | | |
| | EC50 | Scenedesmus subspicatus (Desmodesmus subspicatus (Chodat)) | > 900 mg/l, 72 hours |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | > 1000 mg/l, 48 hours |
| Fish | LC50 | Carp (Cyprinus carpio) | > 1000 mg/l, 96 hours |
| Spinetoram (CAS 935545-74-7) | | | |
| | LC50 | Mysid (Mysidopsis bahia) | 0.355 mg/l, 96 hours |
| Other | ErC50 | Pseudokirchnerella subcapitata | 1.06 mg/l, 72 hours |
| Aquatic | | | |
| Algae | ErC50 | Duckweed (Lemna minor) | > 14.2 mg/l, 7 days (highest concentration tested) |
| Crustacea | EC50 | Water flea (Daphnia magna) | 0.229 mg/l, 48 hours |
| | | Water flea (Daphnia magna) | 0.951 µg/l, 21 days |
| | | | 0.33 µg/l, 21 days |
| Fish | LC50 | Bluegill (Lepomis macrochirus) | 0.0624 µg/l, 21 days |
| | | | 2.69 mg/l, 96 hours (highest concentration tested) |
| | | Rainbow trout,donaldson trout (Oncorhynchus mykiss) | > 3.46 mg/l, 96 hours (highest concentration tested) |
| | NOEC | Fathead minnow (Pimephales promelas) | 0.182 mg/l, 32 days |
| | | Sheepshead minnow (Cyprinodon variegatus) | 1.53 mg/l, 37 days |
| | | | |
| Other | ErC50 | Diatom (Navicula seminulum) | 0.127 mg/l, 72 hours |
| Persistence and degradability | No data is available on the degradability of this product. | | |
| Bioaccumulative potential | Not known. | | |
| Partition coefficient n-octanol / water (log Kow) | | | |
| Benzyl Alcohol | | 1.1 | |
| Propylene Carbonate | | -0.41 | |
| Mobility in soil | Not available. | | |
| Other adverse effects | Not available. | | |

13. Disposal considerations

Disposal instructions Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transport information

General information Effective January 1, 2015 by Special Provision, UN3077 and UN3082 when packaged in inner packages of 5L / 5 KG or less are not subject to the dangerous goods regulations.

DOT

Not regulated as dangerous goods.

IATA

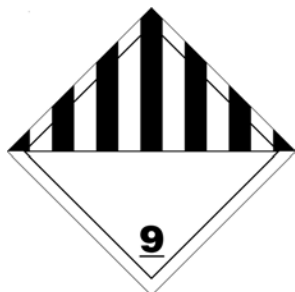
| | |
|-------------------------------------|--|
| UN number | UN3082 |
| UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s. (Spinetoram) |
| Transport hazard class(es) | |
| Class | 9 |
| Subsidiary risk | - |
| Packing group | III |
| Environmental hazards | Yes |
| ERG Code | 9L |
| Special precautions for user | Not available. |
| Other information | |
| Passenger and cargo aircraft | Allowed with restrictions. |
| Cargo aircraft only | Allowed with restrictions. |

IMDG

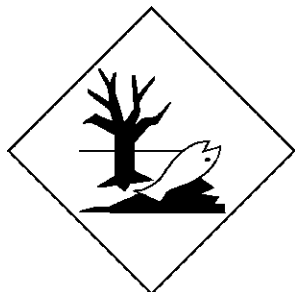
| | |
|-------------------------------------|--|
| UN number | UN3082 |
| UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Spinetoram) |
| Transport hazard class(es) | |
| Class | 9 |
| Subsidiary risk | - |
| Packing group | III |
| Environmental hazards | |
| Marine pollutant | Yes |
| EmS | F-A, S-F |
| Special precautions for user | Not available. |

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

IATA; IMDG



Marine pollutant



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

One or more components are not listed on TSCA.

CERCLA/SARA Hazardous Substances - Not applicable.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes

Delayed Hazard - No

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| Canada | Domestic Substances List (DSL) | No |
| Canada | Non-Domestic Substances List (NDSL) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | No |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

| | |
|----------------|---------------------------------------|
| Issue date | 12-17-2014 |
| Revision date | 09-21-2017 |
| Version # | 02 |
| Lilly Lab Code | Health: 2 Fire: 1 Reactivity: 0 |

Disclaimer

As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS MATERIAL SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

For additional information contact:

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Revision information

This document has undergone significant changes and should be reviewed in its entirety.