



Elector Bait

Effective Date: 24-Jun-2005

Elanco Animal Health Material Safety Data Sheet

Section 1 - Chemical Product and Company

Manufacturer:

Elanco Animal Health
Division of Eli Lilly and Company
2001 West Main St
PO Box 708
Greenfield, IN 46140

Manufacturer's Emergency Phone:

1-800-428-4441

CHEMTREC:

1-800-424-9300 (North America)

1-703-527-3887 (International)

Common Name: Elector Bait

Chemical Name: 1H-as-Indaceno[3,2-d]oxacyclododecin-7,15-dione, 2-[(6-deoxy-2,3,4-tri-O-methyl-alpha-L-mannopyranosyl)oxy]-13-[[[(2R,5S,6R)-5-(dimethylamino) tetrahydro-6-methyl-2H-pyran-2-yl]oxy]-9-ethyl-2,3,3a,5a,5b,6,9,10,11,12,13,14,16a,16b-tetradecahydro-14-methyl-, (2R,3aS,5aR,5bS,9S,13S,14R,16aS,16bR)-

Chemical Name 2: 1H-as-Indaceno[3,2-d]oxacyclododecin-7,15-dione, 2-[(6-deoxy-2,3,4-tri-O-methyl-alpha-L-mannopyranosyl)oxy]-13-[[[(2R,5S,6R)-5-(dimethylamino) tetrahydro-6-methyl-2H-pyran-2-yl]oxy]-9-ethyl-2,3,3a,5a,5b,6,9,10,11,12,13,14,16a,16b-tetradecahydro-4,14-dimethyl-, (2S,3aR,5aS,5bS,9S,13S,14R,16aS,16bS)-

Synonym(s): Spinosad

Trademarks(s): Elector

See attached glossary for abbreviations.

Section 2 - Composition / Information on Ingredients

<u>Ingredient</u>	<u>CAS</u>	<u>Concentration %</u>
Spinosyn A	131929-60-7	a
Spinosyn D	131929-63-0	a
Proprietary Ingredients	NA	99.5

a - Spinosyn A and Spinosyn D combine to make spinosad which accounts for 0.5% of this formulation.

Exposure Guidelines:

Spinosad - Dow AgroSciences Exposure Guideline 0.3 mg/m³ TWA.

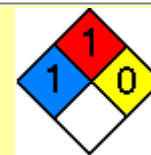
Section 3 - Hazards Identification

Appearance: Yellow granular solid

Physical State: Solid

Odor: Stale metallic

Emergency Overview



Emergency Overview Effective Date: 24-Jun-2005

Lilly Laboratory Labeling Codes:

Health 1

Fire 1

Reactivity 0

Primary Physical and Health Hazards: Liver, Kidney and Bone Marrow Effects.

Caution Statement: Elector Bait contains spinosad. Effects of exposure to spinosad may include liver, kidney, and bone marrow tissue effects.

Routes of Entry: Inhalation and skin contact.

Effects of Overexposure: May cause eye irritation with corneal injury due to mechanical action. Prolonged contact is essentially non-irritating to skin. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. Vapors are unlikely due to physical properties. Based on animal studies, overexposure to spinosad may cause changes in the liver, kidney, or bone marrow.

Medical Conditions Aggravated by Exposure: None known.

Carcinogenicity:

Spinosad (spinosyn A and spinosyn D) - No carcinogenicity data found. Not listed by IARC, NTP, ACGIH, or OSHA.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water; remove contact lenses after the first 1-2 minutes and then continue flushing for several minutes.

Skin: Wash skin with plenty of water.

Inhalation: Move person to fresh air; if effects occur, consult physician.

Ingestion: No emergency medical treatment necessary.

Notes to Physician: No specific antidote. Treatment of exposure should be directed at the control symptoms and the clinical condition of the patient.

Section 5 - Fire Fighting Measures

Flash Point: Not applicable

UEL: Not applicable

LEL: Not applicable

Extinguishing Media: To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical, or foam.

Unusual Fire and Explosion Hazards: Under fire conditions some components of this product may decompose.

Hazardous Combustion Products: May emit toxic fumes when exposed to heat or fire. The smoke may contain unidentified toxic and/or irritating compounds.

Special Fire Fighting Procedures: Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire-fighting helmet, coat, pants, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance. Isolate fire area and deny unnecessary entry. Keep people away.

Section 6 - Accidental Release Measures

Spills: Sweep up small spills and place in a suitable container for disposal or use according to the label directions. Report large spills to Elanco Animal Health at 1-800-428-4441.

Section 7 - Handling and Storage

Storage Conditions: Store product in original container. See product label for additional instructions.

Section 8 - Exposure Controls / Personal Protection

See Section 2 for Exposure Guideline information.

Respiratory Protection: No respiratory protection should be needed.

Eye Protection: Use safety glasses. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

Skin Protection: No precautions other than clean body-covering clothing should be needed.

Ventilation: Good general ventilation should be sufficient for most conditions.

Additional Exposure Precautions: Avoid eye contact. Do not take internally. Wash hands thoroughly after handling and before eating, drinking, or smoking.

Section 9 - Physical and Chemical Properties

Appearance: Yellow granular solid

Odor: Stale metallic

Boiling Point: No applicable information found

Melting Point: No applicable information found

Density: 0.70 g/ml

pH: 8.04 @ 25 C (77 F) (1% solution)

Evaporation Rate: No applicable information found

Water Solubility: No applicable information found

Vapor Density: No applicable information found

Vapor Pressure: No applicable information found

Section 10 - Stability and Reactivity

Stability: Stable under normal storage conditions.

Incompatibility: None known.

Hazardous Decomposition: Hazardous decomposition products depend upon temperature, air supply, and the presence of other materials.

Hazardous Polymerization: Not known to occur.

Section 11 - Toxicological Information

Acute Exposure

The toxicity data reported below are provided by Eli Lilly and Company.

Oral:

Spinosad - Rat (male), median lethal dose greater than 7500 mg/kg.

Rat (female), median lethal dose greater than 5000 mg/kg.

Dog, 400 mg/kg, no deaths.

Skin:

Spinosad - Rabbit, median lethal dose greater than 5000 mg/kg.

Inhalation: No applicable information found.

Skin Contact:

Spinosad - Rabbit, nonirritant

Eye Contact:

Spinosad - Rabbit, slight irritant

Chronic Exposure

The toxicity data reported below are provided by Eli Lilly and Company.

Target Organ Effects:

Spinosad - In animals, has been shown to cause vacuolation of cells in liver, kidney, and bone tissues and changes in blood and serum biochemistry. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

Reproduction:

Spinosad - In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

Sensitization:

Spinosad - Did not cause allergic skin reactions when tested in guinea pigs.

Mutagenicity:

Spinosad - Not mutagenic in bacterial or mammalian cells.

Section 12 - Ecological Information

Ecotoxicity Data:

Elector bait

Based largely or completely on information for the active ingredient.

Material is highly toxic to marine molluscs on an acute basis (LC50 or EC50 is between 0.1 and 1.0 mg/L in most sensitive species tested).

Material is moderately toxic to aquatic organisms on an acute basis (LC50 or EC50 is between 1 and 10 mg/L in the most sensitive species tested).

Material is practically non-toxic to birds on an acute basis (LD50 is >2000 mg/kg).

Material is practically non-toxic to birds on a dietary basis (LC50 is >5000 ppm).

Based largely or completely on information for the major components.

Material is practically non-toxic to fish on an acute basis (LC50 is >100 mg/kg).

Environmental Fate:

Elector bait

Based largely or completely on information for the active ingredient and major components.

Bioconcentration potential is low (BCF is <100 or Log Pow <3).

Based largely or completely on information for the active ingredient.

Degradation is expected in the soil environment within days to weeks.

Based largely or completely on information for the major components.

Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD is >40%).

Section 13 - Disposal Considerations

Waste Disposal: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities.

This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

If the material as supplied becomes a waste, follow all applicable regional, national, and local laws and regulations.

Section 14 - Transport Information

Regulatory Organizations:

DOT: Not Regulated

ICAO/IATA: Not Regulated

IMO: Not Regulated

Section 15 - Regulatory Information

Below is selected regulatory information chosen primarily for possible Elanco Animal Health usage. This section is not a complete analysis or reference to all applicable regulatory information. Please consider all applicable laws and regulations for your country/state.

U.S. Regulations

Spinosad (spinosyn A and spinosyn D)

TSCA - No

CERCLA - Not on this list

SARA 302 - Not on this list

SARA 313 - Not on this list

OSHA Substance Specific - No

EU Regulations

EC Classification

Not assigned an overall EC classification.

Section 16 - Other Information

Vendor MSDS Date: 16-Jun-05

MSDS Sections Revised: New MSDS.

Emergency Overview Sections Revised: New caution.

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 MERCHANTABILITY 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:

ELANCO Animal Health

1-800-428-4441

1-317-276-2000

GLOSSARY:

ACGIH = American Conference of Governmental Industrial Hygienists

AIHA = American Industrial Hygiene Association

BEI = Biological Exposure Index

CAS Number = Chemical Abstract Service Registry Number

CERCLA = Comprehensive Environmental Response Compensation and Liability Act (of 1980)

CHAN = Chemical Hazard Alert Notice

CHEMTREC = Chemical Transportation Emergency Center

DOT = Department of Transportation

EC = European Community

EINECS = European Inventory of Existing Chemical Substances

ELINCS = European List of New Chemical Substances

EPA = Environmental Protection Agency

HEPA = High Efficiency Particulate Air (Filter)

IARC = International Agency for Research on Cancer

ICAO/IATA = International Civil Aviation Organization/International Air Transport Association

IEG = Lilly Interim Exposure Guideline

IMO = International Maritime Organization

Kow = Octanol/Water Partition Coefficient

LEG = Lilly Exposure Guideline

LEL = Lower Explosive Limit

MSDS = Material Safety Data Sheet

MSHA = Mine Safety and Health Administration

NA = Not Applicable, except in Section 14 where NA = North America

NADA = New Animal Drug Application

NAIF = No Applicable Information Found

NCI = National Cancer Institute

NIOSH = National Institute for Occupational Safety and Health

NOS = Not Otherwise Specified

NTP = National Toxicology Program

OSHA = Occupational Safety and Health Administration
PEL = Permissible Exposure Limit (OSHA)
RCRA = Resource Conservation and Recovery Act
RQ = Reportable Quantity
RTECS = Registry of Toxic Effects of Chemical Substances
SARA = Superfund Amendments and Reauthorization Act
STEG = Lilly Short Term Exposure Guideline
STEL = Short Term Exposure Limit
TLV = Threshold Limit Value (ACGIH)
TPQ = Threshold Planning Quantity
TSCA = Toxic Substances Control Act
TWA = Time Weighted Average/8 Hours Unless Otherwise Noted
UEL = Upper Explosive Limit
UN = United Nations
WEEL = Workplace Environmental Exposure Level (AIHA)