



**MATERIAL SAFETY DATA SHEET
EXTINOSAD POUR-ON FOR SHEEP**

AH0493

Revision 1.2, 6 August 2008

STATEMENT OF HAZARDOUS NATURE:

"Not Hazardous according to criteria of Worksafe Australia"

Company Name and Address:

Elanco Animal Health
A Division of Eli Lilly Australia Pty Ltd
A.B.N. 39 000 233 992
112 Wharf Road, West Ryde, N.S.W. 2114, Australia

Contact Numbers:

Tel: (02) 9878 7777
Fax: (02) 9878 7720

Emergency Telephone Numbers:

Elanco Animal Health:
1800 226 324 (Toll free)

OR

Poisons Information Centre:
131126 (Australia-wide)

CHEMWATCH 1800 039 008 24 hour emergency contact number (spills and accidents)

Section 1 - Identification

Product Name: Elanco AH0493 Extinosad Pour-On for Sheep

Other Names: Spinosad Pour-On

Manufacturer's Product Code: AH0493

UN Number: None allocated

Dangerous Goods Class/Subsidiary Risk: None allocated

Hazchem Code: None allocated

Poisons Schedule Number: Unscheduled

Pack Size and Container Type: 5 litres , 20 litres and 25 litres

Major Recommended Uses:

For the control of lice (*Bovicola ovis*) in sheep off shears and with long wool, including strains resistant to synthetic pyrethroids.

Major Recommended Method(s) of Application: Pour-On

Section 2 - Composition / Information on Ingredients

Ingredient	CAS	Concentration %
Spinosad A	131929-60-7	a
Spinosad D	131929-63-0	a
Propylene Glycol	57-55-6	20
Trimethylnonanol Polyethylene Glycol	60828-78-6	10
Excipients	various	<10
Water	7732-18-5	>60

^a – Spinosyn A and Spinosyn D combine to make Spinosad which accounts for 2% of the formulation.

Exposure Guidelines:

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

Propylene glycol – WEEL 50 ppm TWA (total vapour and aerosol), 10 mg/m³ (aerosol only) TWA for 8 hours.

UK – Exposure Standard 10 mg/m³ TWA (particulates), 150 ppm (474 mg/m³) TWA (vapour and particulates).

Ireland – Occupational Exposure Limit 10 mg/m³ TWA (particulates) 150 ppm (470 mg/m³) TWA (total vapour and particulates).

Section 3 - Hazards Identification

Appearance: Blue, clear low viscosity liquid

Physical State: Liquid

Odour: Earthy

Emergency Overview

Emergency Overview Effective Date: 07-Jun-2002

Lilly Laboratory Labelling Codes:

Health 2

Fire 1

Reactivity 0

Primary Physical and Health Hazards: Irritant (eyes). Liver, kidney and bone marrow effects.

Caution Statement: Spinosad Pour-On may be irritating to the eyes. May irritate the skin.

Routes of Entry: Inhalation and skin contact.

Effects of Overexposure: May be severely irritating to the eyes. May cause slight skin irritation. Animal studies with high doses of spinosad reported tissue changes in the liver, kidney and bone marrow.

Medical Conditions Aggravated by Exposure: None known.

Carcinogenicity: Spinosad (spinosyn A and spinosyn D) – not listed by IARC, NTP, ACGIH or OSHA. Did not cause cancer in long term animal studies.

Propylene glycol – Not listed by IARC, NTP, ACGIH or OSHA. Multiple long term dietary, inhalation and dermal studies demonstrated no evidence of carcinogenicity in mice, rabbits or rats.

Remaining ingredients – Not listed by IARC, NTP, ACGIH or OSHA.

Section 4 - First Aid Measures

SPECIFIC FIRST AID INSTRUCTIONS AS PER AUSTRALIAN REQUIREMENTS ¹

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 13 1126.

ADDITIONAL INFORMATION PROVIDED BY MANUFACTURER:

Eyes: Flush eyes with plenty of water. Get medical attention.

Skin: Remove contaminated clothing and clean before reuse. Wash all exposed areas of skin with plenty of soap and water. Get medical attention if irritation develops.

Inhalation: Move individual to fresh air. Get medical attention if breathing difficulty occurs. If not breathing, provide artificial respiration assistance (mouth-to-mouth) and call a physician immediately.

Ingestion: Do not induce vomiting. Call a physician or Poisons Control Centre. If available, administer activated charcoal (6-8 heaping teaspoons) with two to three glasses of water. Do not give anything by mouth to an unconscious person. Immediately transport to a medical care facility and see a physician.

Section 5 - Fire Fighting Measures

Flash Point: >62 C (>144 F)

Flash Method: Pensky-Martin Closed Tester

UEL: No applicable information found

LEL: No applicable information found

Extinguishing Media: Use water, carbon dioxide, dry chemical, foam, or Halon.

¹ Handbook of First Aid Instructions and Safety Directions for Agricultural and Veterinary Chemicals (including Pesticides). Therapeutic Goods Administration

Unusual Fire and Explosion Hazards: Slight fire hazard when exposed to heat or flame.

Hazardous Combustion Products: May emit toxic fumes when exposed to heat or fire.

Section 6 - Accidental Release Measures

Spills: Prevent further migration into the environment. Use absorbent/adsorbent material to solidify liquids. Sweep up or vacuum. Large spills due to traffic accidents, etc., should be reported immediately to Elanco Animal Health for assistance. Prevent spilled material from flowing onto adjacent land or into streams, ponds, or lakes. Wear protective equipment, including eye protection, to avoid exposure (see Section 8 for specific handling precautions).

Section 7 - Handling and Storage

Storage Conditions: Store at room temperature. Product should not be used after the date printed on the container. Warehouse: 10 to 40 C (45 to 104 F).

Section 8 - Exposure Controls / Personal Protection

See Section 2 for Exposure Guidelines.

SPECIFIC SAFETY INSTRUCTIONS AS PER AUSTRALIAN REGISTERED LABEL²

May irritate the skin. Will damage eyes. Avoid contact with eyes and skin. If product in eyes, wash it out immediately with water. Wash hands after use. When using the product wear elbow-length PVC gloves and goggles. After each day's use wash gloves.

ADDITIONAL INFORMATION PROVIDED BY MANUFACTURER:

When mixing and handling, use protective clothing including impervious gloves. Operators should wash thoroughly with soap and water after handling. If accidental eye contact occurs, immediately rinse with plenty of water.

Respiratory Protection: Use an approved respirator.

Eye Protection: Safety glasses or goggles.

Ventilation: Laboratory fume hood or local exhaust ventilation.

Other Protective Equipment: 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.

² Handbook of First Aid Instructions and Safety Directions for Agricultural and Veterinary Chemicals (including Pesticides). Therapeutic Goods Administration

Additional Exposure Precautions: 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.

Section 9 - Physical and Chemical Properties

Appearance: Blue, clear low viscosity liquid
Odour: Earthy
Boiling Point: Not applicable
Melting Point: Not applicable
Specific Gravity: 1.023
pH: 4 to 4.1
Evaporation Rate: No applicable information found
Water Solubility: Soluble
Vapour Density: No applicable information found
Vapour Pressure: No applicable information found

Section 10 - Stability and Reactivity

Stability: Stable at normal temperatures and pressures.
Incompatibility: May react with strong oxidizing agents (e.g., peroxides, permanganates, nitric acid, etc.).
Hazardous Decomposition: May emit toxic fumes when heated to decomposition.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

Animal Toxicity Data Single Exposure

No data available for mixture or formulation. Data for ingredient(s) or related material(s) are presented.

Oral: Spinosad pour-on - Rat, median lethal dose between 5000 mg/kg and 20000mg/kg.

Skin: Spinosad pour-on - Rabbit, median lethal dose greater than 1000 mg/kg.

Inhalation: Spinosad pour-on - Rat, median lethal concentration greater than 5180 mg/m³ for 4 hours.

Propylene glycol – Dog, 313 g/m³ to 627 g/m³ for 15 minutes, no deaths or toxicity.

Dimethylsiloxane – Rabbit, median lethal concentration 978 g/m³ for 7.5 hours, no deaths.

Skin Contact: Spinosad pour-on - Rabbit, non-irritant.

Eye Contact: Spinosad pour-on - Rabbit, severe irritant (reversible)

Chronic Exposure:

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.

Propylene glycol – Kidney effects (decreased weight, tissue changes).

Other Effects:

Spinosad – Decreased activity, leg weakness and intermittent tremors were reported in a female dog given oral doses of 200 mg/kg/day for 5 days. These effects were not observed in the male dog.

Reproduction:

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

– Decreased offspring survival and fetal weight at doses toxic to the mother.

Polydimethylsiloxane – No effects identified in limited animal studies.

Sensitisation:

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

Mutagenicity:

Spinosad - Not mutagenic in bacterial or mammalian cells.

Propylene glycol – In vitro mutagenicity studies were negative. Animal mutagenicity studies were negative.

Polydimethylsiloxane – Not mutagenic in bacterial or mammalian cells.

Section 12 - Ecological Information

No environmental data for the mixture or formulation. The environmental data for ingredient(s) or related material(s) are presented.

Environmental Summary:

Spinosad – Highly toxic to honey bees, oysters and diatoms. Moderately toxic to blue-green algae. Slightly to moderately toxic to fish and aquatic invertebrates. No more than slightly to practically non-toxic to birds. Practically non-toxic to green algae. No volatility expected. Does not bioconcentrate in aquatic organisms. Not persistent due to photolysis and biodegradation.

Propylene glycol – Practically non-toxic to aquatic organisms. Material is not expected to bioconcentrate in aquatic organisms. Material may leach from soil into groundwater. Material is expected to be degraded by microorganisms.

Biodegradation is expected to be achievable in secondary waste water treatment plant. Material is not expected to readily evaporate; however, once in the atmosphere it is expected to rapidly degrade (within minutes to hours).

Polydimethylsiloxane – Material is toxic to slightly toxic to aquatic organisms.

Material can be considered immobile in soil. Material is not expected to be degraded in water, air or soil by light or microorganisms. Material is considered persistent in the environment.

Refer to Section 13 for Australian environmental information associated with disposal.

Section 13 - Disposal Considerations

Disposal: Triple or (preferably) pressure rinse container with water and dispose of rinsate in a disposal pit set up for this purpose clear of waterways, vegetation and roots. Do not dispose of undiluted chemicals on site. Break, crush or puncture and bury empty containers in a local authority landfill. If not available bury the containers below 500mm in a disposal pit. Empty containers and product should not be burnt.

Section 14 - Transport Information

No special transport requirements necessary.

Section 15 – Other Information

Sections revised: Header and Footer: removed automatic print date from header. Pagination changed to page number only. Removed draft watermark from MSDS. Removed statement (not registered in Australia) from the MSDS title. Updated Chemwatch contact details in Emergency contact numbers.

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.

GLOSSARY

(Abbreviations Used in Material Safety Data Sheets)

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)

CHEMTREC = Chemical Transportation Emergency Centre

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
LEG = Lilly Exposure Guideline
LEL = Lower Explosive Limit
MSDS = Material Safety Data Sheet
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)