



**MATERIAL SAFETY DATA SHEET
ELECTOR PSP Animal Premise Spray**

AH0495

Revision 1.4, 18 April 2007

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)

24 hour Emergency Contact Number, CHEMWATCH: 1800 039 008

Section 1 - Identification

Product Name: ElancoAH0495 Elector PSP

Other Names: Spinosad Suspension Concentrate, Extinosad PSP, Spinosad PSP, NAF-85

Manufacturer's Product Code: AH0495

UN Number: None allocated

Dangerous Goods Class/Subsidiary Risk: None allocated

Hazchem Code: None allocated

Poisons Schedule Number: Unscheduled

Pack Size and Container Type: HDPE plastic containers; 250 mL, 1L

Use:

Major recommended uses: For control of house flies (*Musca domestica*), stable flies (*Stomoxys calcitrans*) and darkling beetles (*Alphitobius diaperinus*) in and around agricultural animal premises.

Major Recommended Method(s) of Application: Coarse, low pressure spray.

Section 2 - Composition / Information on Ingredients

<u>Ingredient</u>	<u>CAS</u>	<u>Concentration %</u>
Spinosad A	131929-60-7	a
Spinosad D	131929-63-0	a
Proprietary ingredients	NA	NAIF

a - Spinosyn A and Spinosyn D combined make up 42.9% to 45.5% of this mixture.

Contains no hazardous components (one percent or greater) or carcinogens (one-tenth percent or greater) not listed above.

Exposure guidelines: Spinosad - Dow AgroSciences Exposure Guideline 0.3 mg/m³ TWA. Propylene glycol - WEEL 50 ppm (total vapour and aerosol), 10 mg/m³ (aerosol only) TWA for 8 hours.

Section 3 - Hazards Identification

Appearance: Tan to grey aqueous suspension

Physical State: Liquid

Odour: Latex paint

Emergency Overview

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

Caution Statement: Effects of exposure to spinosad PSP may include liver, kidney, and bone marrow tissue changes.

Routes of entry: Inhalation and skin contact.

Effects of Exposure: The acute oral toxicity is low, and small amounts ingested incidentally during handling are not likely to be harmful. May cause slight temporary eye irritation. The acute dermal toxicity is low and a single prolonged dermal exposure is not likely to result in absorption of harmful amounts. The active ingredient is not expected to cause skin irritation. The active ingredient is not a skin sensitizer in guinea pigs. The acute inhalation toxicity is low and absorption of harmful amounts by inhalation is unlikely.

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.

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

Section 4 - First Aid Measures

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 doctor immediately.

Ingestion: Do not induce vomiting. Call a physician or Poisons Information Centre. Phone 13 1126 (Australia-wide). 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 doctor.

Section 5 - Fire Fighting Measures

Flash Point: No applicable information found

Flash method: No applicable information found

UEL: No applicable information found

LEL: No applicable information found

Extinguishing Media: Non-combustible – Use appropriate extinguishing media for surrounding fire conditions.

Unusual Fire and Explosion Hazards: None known.

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 in the closed, original container in a dry, cool well-ventilated area out of direct sunlight.

Section 8 - Exposure Controls / Personal Protection

See Section 2 for Exposure Guidelines.

SPECIFIC SAFETY INSTRUCTIONS AS PER AUSTRALIAN REGISTERED LABEL¹:

May irritate the eyes and skin. Avoid contact with eyes and skin. When preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow length PVC gloves. Wash hands after use. After each day's use wash gloves and contaminated clothing.

(¹Handbook of First Aid Instructions, Safety Directions, Warning Statements and General Safety Precautions for Agricultural and Veterinary Chemicals)

ADDITIONAL INFORMATION PROVIDED BY MANUFACTURER:

When mixing and handling, use protective clothing, impervious gloves, and dust respirator. 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.

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.

Other Handling 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: Tan to gray aqueous suspension

Odour: Latex paint

Boiling Point: Not applicable

Melting Point: Not applicable

Specific Gravity: 1.01-1.04 @ 20°C (68°F)

pH: 7.3 to 8.7

Evaporation Rate: No applicable information found

Water Solubility: Soluble

Vapor Density: No applicable information found

Vapor Pressure: No applicable information found

Section 10 - Stability and Reactivity

Stability: Stable.

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 Exposure

Oral: Spinosad suspension (44%) - Rat, median lethal dose estimated greater than 5000 mg/kg.

Skin: Spinosad suspension (44%) - Rabbit, median lethal dose estimated greater than 2000 mg/kg.

Inhalation: Spinosad suspension (44%) - Rat, median lethal concentration estimated greater than 5000 mg/m³ (duration not specified).

Skin Contact: Spinosad - Rabbit, slight irritant.

Eye Contact: Spinosad - Rabbit, slight irritant.

Chronic Exposure

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

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

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

Ecotoxicity Data:

Spinosad

Rainbow trout 96-hour median lethal concentration: 30 mg/L

Bluegill 96-hour median lethal concentration: 5.94 mg/L

Sheepshead minnow 96-hour median lethal concentration: 7.87 mg/L

Daphnia magna 48-hour median lethal concentration: 92.7 mg/L

Bobwhite 5-day dietary median lethal concentration: >5253 ppm

Mallard 5-day dietary median lethal concentration: >5156 ppm

Bobwhite 14-day oral median lethal dose: >2000 mg/kg

Mallard 14-day oral median lethal dose: >2000 mg/kg

Honey bee 48-hour acute contact median lethal dose: 0.0029 microgram/bee

Green algae (*S. capricornutum*) median effective concentration: >105.5 ppm

Blue-green algae (*Anabaena flos-aquae*) median effective concentration: 8.09 mg/L

Diatom (*Navicula* sp.) median effective concentration: 0.107 mg/L

Diatom (*Skeletonema costatum*) median effective concentration: 0.227 mg/L

Eastern oyster 96-hour median effective concentration: 0.3 ppm

Grass shrimp 96-hour median lethal concentration: >9.76 mg/L

Environmental Fate:

Spinosad

Photolysis half-life in water (days): 0.93 for spinosyn A at pH 7; 0.82 for spinosyn D at pH 7

Photolysis half-life in soil (days): 82 for spinosyn A; 44 for spinosyn D

Hydrolysis half-life (days): none, none (pH 5, 7); 200 for spinosyn A (pH 9); 259 for spinosyn D (pH 9)

Field soil dissipation half-life (days): 0.3 to 0.5 for spinosyn A

Soil leaching: immobile

Aerobic biodegradation half-life in soil (days): 9.4-17.3 for spinosyn A; 14.5 for spinosyn D

Anaerobic biodegradation half-life in water (days): 161 for spinosyn A; 250 for spinosyn D

Bioconcentration factor (BCF) in whole fish: 114

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 nontoxic to birds. Practically nontoxic to green algae. No volatility expected. Does not bioconcentrate in aquatic organisms. Not persistent due to photolysis and biodegradation.

SPECIFIC LABEL INSTRUCTIONS AS PER AUSTRALIAN REQUIREMENTS - PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT: DO NOT allow the product or used containers to enter dams, ponds, waterways or drains.

PROTECTION OF NON-TARGET INSECTS:

Dangerous to bees. Avoid direct application, or spray drift, on to beehives.

Section 13 - Disposal Considerations

Disposal: Rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. Dispose of at a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burned.

Section 14 - Transport Information

No special transport requirements necessary.

Section 15 - Other Information

Header- Removed not registered in Australia yet.

Section 8: revised specific safety instructions as per Australian registered label.

Section 15: Moved Chemwatch details to header section. Deleted contact point.

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 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
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)