



Cyrex Liquid

Effective Date: 20 September 2011

Section 1 – Identification of the substance and supplier

Product Name:	Cyrex
Manufacturer's Product Code:	AH0969
UN number:	N/A
Proper Shipping Name:	N/A
Pack Size:	250mL, 5L, 10L
Recommended use:	Dipping and jetting insecticide for the treatment and prevention of lice and flies on sheep.

NEW ZEALAND COMPANY DETAILS:

Elanco Animal Health
(Division of Eli Lilly & Company (NZ) Limited)
 Level 1, 123 Ormiston Road
 Botany Junction, Auckland 2016
 Telephone: 09 523 9320
 (Mon-Fri, 8.30am – 5.00pm)
 0800 ELANCO (0800 352 626)
www.elanco.co.nz

NEW ZEALAND EMERGENCY PHONE:

National Poisons Centre:
 0800 POISON (0800 764 766)
 24 hours

CHEMCALL:
 0800 CHEMCALL (0800 243 622)
 24 hours

Section 2 - Hazards Identification

Classified as a hazardous substance according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

Cyrex is approved pursuant to the HSNO Act 1996, HSR007851. The EPA website www.epa.govt.nz should be consulted for the full list of triggered controls and cited regulations.

HSNO Classifications:	6.1E Acute toxin
	6.9B Target organ toxin
	9.1C Aquatic ecotoxin
	9.2C Soil ecotoxin
	9.4A Terrestrial invertebrate ecotoxin

Signal word: WARNING

Hazard Statements: May be harmful if swallowed
 Spinosad and cyromazine may cause target organ damage through prolonged or repeated exposure
 Harmful to aquatic life with long lasting effects
 Harmful to the soil environment
 Very toxic to terrestrial invertebrates

Precautionary Statements: Read label before use
 Keep out of reach of children
 If medical advice is needed, have product container or label at hand
 Call a Poison Centre or doctor/physician if you feel unwell
 Avoid skin contact
 Wash hands and exposed skin before meals and after work
 Do not breathe mist or spray
 Avoid release to the environment
 Collect spillage

Section 3 - Composition / Information on Ingredients

Chemical Name	CAS-No.	Concentration [%]
Spinosad	168316-95-8	1.25
Spinosyn A	131929-60-7	-
Spinosyn D	131929-63-0	-
Cyromazine	66215-27-8	50
Propylene Glycol	57-55-6	4
Excipients not contributing to a hazard	NA	4.75
Water	7732-18-5	40

NA = Not applicable, Not assigned, or Not available.

Spinosad:

Chemical Name:

1H-as-Indaceno[3,2-d]oxacyclododecin-7,15-dione, 2-[(6-deoxy-2,3,4-tri-O-methylalpha-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,16btetradecahydro-14-methyl-, (2R,3aS,5aR,5bS,9S,13S,14R,16aS,16bR)-

Alternate 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,16btetradeca
 hydro-
 4,14-dimethyl-,
 (2S,3aR,5aS,5bS,9S,13S,14R,16aS,16bS)-

Cyromazine:

Chemical Name: 1,3,5-Triazine-2,4,6-triamine, N-cyclopropyl

Section 4 - First Aid Measures**TREATMENT:**

If swallowed: If conscious, give the patient plenty of water to drink. Never give anything by mouth to an unconscious person. Call a POISON CENTRE or doctor/physician if you feel unwell.

If inhaled: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.

If on skin: Wash off immediately with plenty of water for at least 15 minutes. Take off all contaminated clothing immediately. Get medical attention if irritation develops and persists. Wash contaminated clothing before re-use.

If in eyes: Immediately flush eye(s) with plenty of water. Obtain medical attention if irritation develops.

Section 5 - Fire Fighting Measures

Flash point None

Lower explosion limit Not known

Upper explosion limit Not known

Suitable extinguishing media: Water, Carbon Dioxide (CO₂), Dry Chemical media, foam

Unsuitable extinguishing media: None known

Unusual Fire and Explosion Hazards: None known

Fire fighting precautions: May emit toxic fumes when exposed to heat or fire, hazardous decomposition products formed under fire conditions

Hazchem code: 3Z

Section 6 - Accidental Release Measures

Protective clothing and equipment:	Wear protective equipment, including eye protection, to avoid exposure (see Section 8 for specific handling precautions).
Environmental precautions:	Prevent further migration into the environment. Do not allow material to enter waterways.
Procedure:	Use absorbent/adsorbent material to solidify liquids. Clean up promptly by sweeping or vacuum.
Emergency response assistance:	For specialist advice in an emergency call 0800 CHEMCALL (0800 243 622) and Elanco Animal Health for assistance

Section 7 - Handling and Storage

Storage instructions:	Keep out of reach of children.
Handling precautions:	Avoid skin contact. Wear gloves and overalls when handling this product. Wash hands and exposed skin thoroughly after handling and before meals. Do not breathe mist or spray. Do not rehandle sheep until dry after treatment.
Emergency response plan required:	1000L
Emergency containment required:	1000L
Signage required:	100L
Approved Handler:	Not required
Packaging requirements:	The packaging for this substance must conform to the packaging requirements as specified in Schedule 4 of the Hazardous Substances (Packaging) Regulations 2001 (PS4).

Section 8 - Exposure Controls / Personal Protection

Exposure limits or guidelines:	Spinosad: Supplier: TWA 0.3 mg/m ³ Propylene glycol: AIHA: TWA 10 mg/m ³ for 8 hours (aerosol only)
Engineering measures:	Laboratory fume hood or local exhaust ventilation.
Personal protective equipment:	When mixing and handling, use protective clothing, safety glasses, impervious gloves, and dust respirator.

Section 9 - Physical and Chemical Properties

Appearance:	White to off-white aqueous suspension
Physical state:	Liquid
Odour:	Earthy
pH:	6.5 – 9.0
Boiling point:	Not known
Freezing point:	Not known
Solubility:	Soluble
Specific Gravity:	1.125 – 1.165
Flammability:	Not flammable

Section 10 - Stability and Reactivity

Stability:	Stable under normal conditions of use
Conditions to avoid:	None known
Incompatible materials:	Avoid strong oxidising agents
Hazardous decomposition products:	Hazardous decomposition products formed under fire conditions
Hazardous reactions	Hazardous polymerisation does not occur

Section 11 - Toxicological Information

No data available for mixture. Data for ingredients or related materials are presented.

Acute oral toxicity	Spinosad :	LD ₅₀ (male rat) 4444 mg/kg LD ₅₀ (female rat) >5000 mg/kg LDLo (dog) >400 mg/kg
Acute inhalation toxicity	Cyromazine:	LD ₅₀ (rat) 3387 mg/kg
	Spinosad:	LC ₅₀ (rat) >5180 mg/m ³ (4 h)
	Cyromazine:	LC ₅₀ (rat) >2720 mg/m ³ (4h)
Acute dermal toxicity	Spinosad:	LD ₅₀ (rabbit) >5000 mg/kg
	Cyromazine:	LD ₅₀ (rat) >3100 mg/kg
Skin irritation	Spinosad:	Rabbit ; no irritation
	Cyromazine:	Rabbit; slight irritant
Eye irritation	Spinosad:	Rabbit ; slight irritation
	Cyromazine:	Rabbit ; slight irritation
Sensitisation	Spinosad :	Guinea pig ; Did not cause sensitisation on laboratory animals
	Cyromazine:	Guinea pig ; Did not cause sensitisation on laboratory animals

Repeated dose toxicity	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.
	Cyromazine:	Short-term rat and dog studies and long-term mice and rat studies consistently showed a reduction in body weight gain at high dose levels and was largely reversible after treatment was discontinued. Reduced erythrocyte and haemoglobin levels were observed at high doses.
Carcinogenicity	Spinosad :	Did not cause cancer in long term animal studies.
	Cyromazine :	Material has been extensively tested on laboratory mammals and in test tube systems. No evidence of carcinogenic effects was obtained.
	Propylene glycol :	Multiple long term dietary, inhalation, and dermal studies demonstrated no evidence of carcinogenicity in mice, rabbits, or rats.
Reproductive toxicity	Spinosad :	In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.
	Cyromazine:	No evidence of teratogenic or reproductive effects in extensive laboratory testing on mammals and in test tube systems.
Mutagenicity	Spinosad :	Result in genetic toxicity assays (in vitro and in vivo): Negative
	Cyromazine:	No evidence of mutagenic effects has been obtained

Section 12 - Ecological Information

No data available for mixture. Data for ingredients or related materials are presented.

Toxicity to fish	Spinosad :	LC ₅₀ / 96h / Lepomis macrochirus : 5.94 mg/L
		LC ₅₀ / 96h / Oncorhynchus mykiss : 30 mg/L
Toxicity to algae	Cyromazine:	LC ₅₀ / 96h / Rainbow trout: >87.9 ppm
		LC ₅₀ / 96h / Bluegill: >89.7 ppm
		LC ₅₀ / 96h / Channel catfish: >91.6 ppm
Toxicity to daphnia	Spinosad :	EC ₅₀ / Pseudokirchneriella subcapitata: >105.5 ppm
		EC ₅₀ / Navicula sp.: 0.107 mg/l
Any other relevant information available	Spinosad :	EC ₅₀ / 48 h / Daphnia magna : 92.7 mg/l
	Cyromazine:	EC ₅₀ / 48 h / Daphnia magna : >97.8 ppm
Any other relevant information available	Spinosad :	Does not bioconcentrate in aquatic organisms. Not persistent due to photolysis and biodegradation.
	Cyromazine:	Environmental fate Log Kow – 0.96 Cyromazine is not expected to bioaccumulate in aquatic organisms. Slightly toxic to fish, paractically non-toxic to bees, slightly toxic to birds. Soluble in water and may leach from soil into groundwater.

Section 13 - Disposal Considerations

Preferably dispose of product by use. Otherwise dispose of product as part of an approved chemical disposal program. Triple rinse empty container. Add rinsate to dip wash. Recycle empty rinsed container at an approved recycling centre. Otherwise crush empty container and bury in a suitable landfill. Do not use container for any other purpose.

Section 14 - Transport Information

Land Transport	Not regulated
Air Transport	Not regulated
Sea Transport	Not regulated
UN Number	Not assigned
Proper Shipping Name	Not assigned
DG Class	Not assigned
Subsidiary Risk	Not assigned
Packing Group	The packaging for this substance must conform to the packaging requirements as specified in Schedule 4 of the Hazardous Substances (Packaging) Regulations 2001 (PS4).

HAZCHEM Code 3Z
Marine Pollutant No

The maximum quantity of this substance allowed for carriage on public transport is 10L.

Section 15 - Regulatory Information

Cyrex is approved pursuant to the ACVM Act 1997 (A9917)
See www.foodsafety.govt.nz for registration conditions.

A Safety Data Sheet must be provided whenever 1L of Cyrex is sold or supplied.

Section 16 – Other Information

This SDS is effective as of 20 September 2011.

Sections updated or revised: Formatting of entire document. ACVM website updated.

Due for revision within 5 years.

Further information

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
0800 352 626