Chemwatch Independent Material Safety Data Sheet Issue Date: 6-Apr-2010

NC317ECP

CHEMWATCH 23-4003 Version No:2.0 CD 2010/1 Page 1 of 9

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

PY-SECT INSECTICIDE

PROPER SHIPPING NAME

AEROSOLS

PRODUCT USE

■ Application is by spray atomisation from a hand held aerosol pack. Insecticide spray.

SUPPLIER

Company: Ensign Laboratories Pty Ltd

Address:

490 Wellington Rd

Mulgrave VIC, 3170 AUS

Telephone: +61 3 9550 1500

Emergency Tel: 1800 039 008 (24 hours)

Emergency Tel: +61 3 9573 3112

Fax: +61 3 9560 5545

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.

POISONS SCHEDULE

None

RISK

- Extremely flammable.
- Irritating to eyes.
- Risk of explosion if heated under confinement.
- Very toxic to aquatic organisms may cause long- term adverse effects in the aquatic environment.
- Vapours may cause drowsiness and dizziness.

SAFETY

- Keep away from sources of ignition. No smoking.
- Wear eye/ face protection.
- To clean the floor and all objects contaminated by this material use water and detergent.
- This material and its container must be disposed of in a safe way.
- In case of contact with eyes rinse with plenty of water and contact Doctor or Poisons Information Centre.
- If swallowed IMMEDIATELY contact Doctor or Poisons Information Centre (show this container or label).
- Use appropriate container to avoid environment contamination.
- Avoid release to the environment. Refer to special instructions/ safety data sheets.
- This material and its container must be disposed of as hazardous waste.

Chemwatch Independent Material Safety Data Sheet Issue Date: 6-Apr-2010

NC317ECP

CHEMWATCH 23-4003 Version No:2.0 CD 2010/1 Page 2 of 9

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
ethanol	64-17-5	30-60^
piperonyl butoxide	51-03-6	1-10^
pyrethrum	8003-34-7	1-10^
hydrocarbon propellant	68476-85-7.	30-60^
NOTE: Manufacturer has supplied full ingredient		

information to allow CHEMWATCH assessment.

Section 4 - FIRST AID MEASURES

SWALLOWED

- Not considered a normal route of entry.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

EYE

- If aerosols come in contact with the eyes:
- Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

- If solids or aerosol mists are deposited upon the skin:
- Flush skin and hair with running water (and soap if available).
- Remove any adhering solids with industrial skin cleansing cream.
- DO NOT use solvents.
- Seek medical attention in the event of irritation.

INHALED

- If aerosols, fumes or combustion products are inhaled:
- Remove to fresh air.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

■ Treat symptomatically.

For chronic or short term repeated exposures to pyrethrum and synthetic pyrethroids:

- Mammalian toxicity of pyrethrum and synthetic pyrethroids is low, in part because of poor bioavailability and a large first pass extraction by the liver.
- The most common adverse reaction results from the potent sensitising effects of pyrethrins.
- Clinical manifestations of exposure include contact dermatitis (erythema, vesiculation, bullae); anaphylactoid reactions (pallor, tachycardia, diaphoresis) and asthma. [Ellenhorn Barceloux]

Chemwatch Independent Material Safety Data Sheet Issue Date: 6-Apr-2010 NC317ECP

CHEMWATCH 23-4003 Version No:2.0 CD 2010/1 Page 3 of 9 Section 4 - FIRST AID MEASURES

• In cases of skin contact, it has been reported that topical application of Vitamin E Acetate (alphatocopherol acetate) has been found to have high therapeutic value, eliminating almost all skin pain associated with exposure to synthetic pyrethroids. [Incitec].

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- SMALL FIRE:
- Water spray, dry chemical or CO2

LARGE FIRE:

· Water spray or fog.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- If safe, switch off electrical equipment until vapour fire hazard removed.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 100 metres in all directions.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are highly flammable.
- Severe fire hazard when exposed to heat or flame.
- Vapour forms an explosive mixture with air.
- Severe explosion hazard, in the form of vapour, when exposed to flame or spark.
- Vapour may travel a considerable distance to source of ignition.
- Heating may cause expansion or decomposition with violent container rupture.
- Aerosol cans may explode on exposure to naked flames.
- Rupturing containers may rocket and scatter burning materials.
- Hazards may not be restricted to pressure effects.
- May emit acrid, poisonous or corrosive fumes.
- On combustion, may emit toxic fumes of carbon monoxide (CO).

Combustion products include: carbon dioxide (CO2), other pyrolysis products typical of burning organic material.

Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

FIRE INCOMPATIBILITY

• Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM

2YE

Personal Protective Equipment

Gas tight chemical resistant suit.

Chemwatch Independent Material Safety Data Sheet Issue Date: 6-Apr-2010 NC317ECP

CHEMWATCH 23-4003 Version No:2.0 CD 2010/1 Page 4 of 9

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Environmental hazard contain spillage.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Wear protective clothing, impervious gloves and safety glasses.
- Shut off all possible sources of ignition and increase ventilation.
- Wipe up.
- If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until
 pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.

MAJOR SPILLS

- Environmental hazard contain spillage.
- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse / absorb vapour.
- Absorb or cover spill with sand, earth, inert materials or vermiculite.
- If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.
- Collect residues and seal in labelled drums for disposal.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- DO NOT incinerate or puncture aerosol cans.
- DO NOT spray directly on humans, exposed food or food utensils.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

• Aerosol dispenser.

Chemwatch Independent Material Safety Data Sheet Issue Date: 6-Apr-2010 NC317ECP

CHEMWATCH 23-4003 Version No:2.0 CD 2010/1 Page 5 of 9 Section 7 - HANDLING AND STORAGE

Check that containers are clearly labelled.

STORAGE INCOMPATIBILITY

- Pyrethrins and permethrins:
- are unstable in the presence of light, heat, moisture and air
- are hydrolysed by oxygen and/ or sunlight
- may react with strong oxidisers to produce fire and explosions
- are incompatible with alkalis.
- Avoid strong bases.

STORAGE REQUIREMENTS

- Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can.
- Store in original containers in approved flammable liquid storage area.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- No smoking, naked lights, heat or ignition sources.
- Keep containers securely sealed. Contents under pressure.
- Store away from incompatible materials.
- Store in a cool, dry, well ventilated area.
- Avoid storage at temperatures higher than 40 deg C.
- Store in an upright position.
- Protect containers against physical damage.
- · Check regularly for spills and leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS Source	Material	TWA ppm	TWA mg/m³	Notes
Australia Exposure Standards	ethanol (Ethyl alcohol)	1000	1880	
Australia Exposure Standards	pyrethrum (Pyrethrum)		5	Sen
Australia Exposure Standards	hydrocarbon propellant (LPG (liquified petroleum gas))	1000	1800	

The following materials had no OELs on our records

• piperonyl butoxide: CAS:51- 03- 6

MATERIAL DATA

PY-SECT INSECTICIDE:

Not available

PERSONAL PROTECTION

EYE

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the

Chemwatch Independent Material Safety Data Sheet Issue Date: 6-Apr-2010

NC317ECP

CHEMWATCH 23-4003 Version No:2.0 CD 2010/1 Page 6 of 9

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET

- No special equipment needed when handling small quantities.
- OTHERWISE:
- For potentially moderate exposures:
- Wear general protective gloves, eq. light weight rubber gloves.
- For potentially heavy exposures:
- Wear chemical protective gloves, eg. PVC. and safety footwear.

OTHER

- No special equipment needed when handling small quantities.
- OTHERWISE:
- Overalls.
- Skin cleansing cream.
- Eyewash unit.
- Do not spray on hot surfaces.

RESPIRATOR

■ Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half- face Respirator	Full- Face Respirator
,		AV ALIC D	
1000	10	AX- AUS P	-
1000	50	-	AX- AUS P
5000	50	Airline *	-
5000	100	-	AX- 2 P
10000	100	-	AX- 3 P
	100+		Airline**

^{* -} Continuous Flow ** - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

■ General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection.

Provide adequate ventilation in warehouse or closed storage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

■ Supplied as an aerosol pack. Contents under PRESSURE. Contains highly flammable hydrocarbon propellant. Clear fragranced liquid spray; does not mix with water.

PHYSICAL PROPERTIES

Liquid.

Gas.

Does not mix with water.

Chemwatch Independent Material Safety Data Sheet

Issue Date: 6-Apr-2010

NC317ECP

CHEMWATCH 23-4003 Version No:2.0 CD 2010/1 Page 7 of 9

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

State	Liquid	Molecular Weight	Not Applicable
Melting Range (℃)	Not Available	Viscosity	Not Available
Boiling Range (℃)	Not Available	Solubility in water (g/L)	Immiscible
Flash Point (℃)	Not Available	pH (1% solution)	Not Available
Decomposition Temp (℃)	Not Available	pH (as supplied)	Not Available
Autoignition Temp (℃)	Not Available	Vapour Pressure (kPa)	Not Available
Upper Explosive Limit (%)	Not Available	Specific Gravity (water=1)	Not Available
Lower Explosive Limit (%)	Not Available	Relative Vapour Density (air=1)	Not Available
Volatile Component (%vol)	Not Available	Evaporation Rate	Not Available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Elevated temperatures.
- Presence of open flame.
- Product is considered stable.
- Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

■ Not normally a hazard due to physical form of product.

Considered an unlikely route of entry in commercial/industrial environments.

Ingestion may result in nausea, abdominal irritation, pain and vomiting.

EYE

■ The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

■ Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. Spray mist may produce discomfort.

Open cuts, abraded or irritated skin should not be exposed to this material.

INHALED

■ Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination. WARNING:Intentional misuse by concentrating/inhaling contents may be lethal.

CHRONIC HEALTH EFFECTS

■ Principal routes of exposure are by accidental skin and eye contact and by inhalation of vapours especially at higher temperatures.

As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice. WARNING: Aerosol containers may present pressure related hazards.

TOXICITY AND IRRITATION

■ Not available. Refer to individual constituents.

Chemwatch Independent Material Safety Data Sheet Issue Date: 6-Apr-2010 NC317ECP

CHEMWATCH 23-4003 Version No:2.0 CD 2010/1 Page 8 of 9 Section 11 - TOXICOLOGICAL INFORMATION

Section 12 - ECOLOGICAL INFORMATION

Refer to data for ingredients, which follows:

PY-SECT INSECTICIDE: Marine Pollutant: Yes

- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- DO NOT discharge into sewer or waterways.

Section 13 - DISPOSAL CONSIDERATIONS

- DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered
- Where in doubt contact the responsible authority.
- Consult State Land Waste Management Authority for disposal.
- Discharge contents of damaged aerosol cans at an approved site.
- Allow small quantities to evaporate.
- DO NOT incinerate or puncture aerosol cans.
- Bury residues and emptied aerosol cans at an approved site.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: FLAMMABLE GAS

HAZCHEM:

2YE (ADG7)

ADG7:

Class or division: 2 1950 UN No.:

Special provisions: 63: 190: 277: 327: 344

Notes: None Portable tanks and bulk None

containers -

Instructions:

Packagings and IBCs -P003; LP02

Packing instruction:

Limited quantities: Portable tanks and bulk containers - Special

provisions:

Subsidiary risk:

UN packing group:

Packing Instructions:

Packagings and IBCs -

Special packing provisions:

PP17, PP87, L2

None

None

None

None

See SP 277

Shipping Name: AEROSOLS

Land Transport UNDG:

Class or division: 2 Subsidiary risk: None

Chemwatch Independent Material Safety Data Sheet

Issue Date: 6-Apr-2010

NC317ECP

CHEMWATCH 23-4003

Version No:2.0

CD 2010/1 Page 9 of 9

Section 14 - TRANSPORTATION INFORMATION

UN No.: 1950 UN packing group: None

Shipping Name: AEROSOLS

Air Transport IATA:

ICAO/IATA Class: 2.1 ICAO/IATA Subrisk: None UN/ID Number: 1950 Packing Group: -

Special provisions: A145

Shipping Name: AEROSOLS, FLAMMABLE

Maritime Transport IMDG:

IMDG Class:2.1IMDG Subrisk:SP63UN Number:1950Packing Group:None

EMS Number: F- D, S- U Special provisions: 63 190 277 327 959

Limited Quantities: See SP277 Marine Pollutant: Yes

Shipping Name: AEROSOLS

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE

None

REGULATIONS

No data for Py-Sect Insecticide (CW: 23-4003)

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name CAS

hydrocarbon propellant 68476- 85- 7, 68476- 86- 8

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at: www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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This is the end of the MSDS.