

SAFETY DATA SHEET

SILO[®] EC

Date of Issue: 17 July 2017

1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

Chemical name of active ingredient(s): Pirimiphos-Methyl 50%
Recommended use: Insecticide
Supplier: Etec Crop Solutions Ltd
PO BOX 51584
Pakuranga, Auckland
Phone 0800 100 325
Emergency telephone number: 0800 CHEMCALL (0800 243 622) 24 Hours

2. HAZARDS IDENTIFICATION

Hazard Classification: **HSNO Class: 3.1C, 6.1D, 6.3B, 6.4A, 6.8B, 6.9A, 9.1A, 9.3A, 9.4A**

Required identification Details: Flammable Liquid, Harmful, Ecotoxic, Keep Out of the reach of Children.
TOXIC – Keep out of reach of children
ECOTOXIC – Very toxic to terrestrial vertebrates.
Flammable liquid and vapour.
May be harmful if swallowed, inhaled or absorbed through the skin.
May cause mild skin irritation and eye irritation.
May cause reproductive/development damage from repeated oral exposure.
May cause neurological symptoms from repeated oral exposure at high doses.
Very toxic to aquatic organisms.
Very toxic to terrestrial vertebrates and terrestrial invertebrates.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation Information on hazardous ingredients

Common name	CAS No	%
Pirimiphos-Methyl (active ingredient)	29232-93-7	50%
Hydrocarbon solvent	64742-94-5	30-60%
Isobutanol	78-83-1	<10
Other ingredients, surfactants etc	Proprietary	Remainder

4. FIRST-AID MEASURES

Description of necessary first aid measures:

Effects and symptoms

First-aid measures

Inhalation:

If inhaled, immediately move to fresh air and rest. Maintain half upright position if breathing is difficult. Seek medical advice if feeling unwell.

Ingestion:

If swallowed do not induce vomiting. Keep strictly at rest as continued movement enhances toxic effects. Seek medical advice immediately.

Skin contact:

If skin or hair contact occurs, immediately wash affected area with soap and water. Wash contaminated clothing before reuse. Seek medical advice if irritation persists.

Eye contact:

If concentrate is splashed in the eyes, hold eyes open and flush with running water for at least 15 minutes. Remove contact lenses if easy to do so. Get medical attention if irritation persists.

Notes to a physician:

Silo 50EC is an organophosphorous insecticide, which inhibits cholinesterase activity and interferes in nerve impulse transmission. Onset of symptoms may be delayed for several hours. Atropine is the specific antidote and may be given immediately by qualified staff at a level of 2-5 mg (intravenously or intramuscularly), every 20 minutes until atropinisation occurs. Considerable amounts of atropine may be necessary. Atropine must NOT be given to cyanosed patients; administer oxygen first. Do NOT use opiates or barbiturates. If convulsions occur, administer diazepam (10mg intravenously). Take venous blood sample for determination of blood cholinesterase activity. Cholinesterase reactivators (Pralidoxime) should, if possible, be given at the same time as atropine. They are not effective 24 hours after exposure and are not substitutes for atropine. Pralidoxime should be administered at: Mild poisoning: 1g in 2-3ml water (intramuscularly); Severe poisoning 2g in 30ml water (intravenously). Following ingestion, adsorbents such as charcoal may be of value. If gastric lavage or emesis is considered necessary, inhalation or hydrocarbons must be prevented. Hydrocarbon aspiration may complicate poisonings involving ingestion.

National Poisons Centre

0800 CHEM CALL (0800 243 622)

5. FIRE-FIGHTING MEASURES

Fire/Explosion Hazard:

Flammable liquid and vapour. Explosive concentrations of vapours may be formed in enclosed or poorly ventilated areas.

HAZCHEM Code:

3[Y]

ERP Guide No:

14

Extinguishing media :

Water spray, foam, dry chemical, Carbon dioxide (CO₂). Avoid water jet.

Hazardous thermal

May include carbon monoxide

(de)composition products:
Protection of fire-fighters:

During a fire, toxic fumes may be emitted
Wear full protective clothing and self contained breathing apparatus. Contain runoff.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

When dealing with spills wear protective clothing as described in Section 8.

Environmental precautions:

Caution: Floors may be slippery if wet. Eliminate all ignition sources and naked lights. Use non-sparking equipment. Prevent further spillage or leakage. Exclude non-essential people from the area.

Methods for cleaning up:

Absorb spillage with inert material such as spill kit, sand or cat litter. Collect and place in a sealable container for disposal. Wash down affected area with water and detergent. Absorb and collect washings for disposal. Dispose of safely in suitable landfill.

7. HANDLING AND STORAGE

Handling:

Keep out of the reach of children. When mixing or applying, avoid contact with skin and eyes. Avoid inhalation of vapour and spray mist. Avoid handling, mixing or use of the product or container near heat, flame or other source of ignition. Take precaution against static discharge. Always use diluted in water. Concentration of Silo EC should not exceed 8% in spray solution. Mix in a well ventilated area. Do not use near air vents or ducts. When mixing or applying, wear protective clothing, gloves and goggles. Do not eat, drink or smoke while using. Wash hands and face before meals and after work. Wash protective clothing after work.

Storage:

Store in original container tightly closed and in a locked, dry, cool, well ventilated area, away from feed and foodstuffs. Avoid storing near heat, flame or other source of ignition. Do not store for prolonged periods in direct sunlight.

Packaging materials:

Approved Handler:

Tracking:

Recording Keeping:

Required if applied in a wide dispersive manner or by commercial contractor.

Not required

Record of use must be kept if applied where members of the public may be lawfully present, or where it is likely to enter air or water and leave that place.

Site requirements under HSNO

Regulations:

A location test certificate is required for more than 500L (closed containers \geq 5L in size), 1500L (Closed container > 5L In size) or 250 L (open containers)

A hazardous atmosphere zone is required for more than 100L (closed containers), 25L (decanting), 5L (container opened occasionally) or 1L (container continuously open).

Fire extinguishers are required for more than 500L (2 fire extinguishers).

Signage is required for 100 L or more.
Emergency information is required for 0.1L or more.
An emergency plan is required for more than 100 L.
Secondary containment is required for more than 100L.
Separation/Segregation from incompatible substances (classes 1,2,3,2,4 and 5) is required.
Vert toxic to bees – Spray must not contact plants in flower if they are likely to be visited by bees. All aspects of storage, handling, use, disposal and record keeping must be in accordance with NZS 8409:2004 'Management of Agrichemicals', and relevant local and regional council plans.

Additional Requirements:

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace Exposure Guidelines

Tolerable Exposure limit: None established

Workplace exposure standards:

Product – None established (use lowest practicable level)
Active ingredient – None established (use lowest practicable level). (Recommendation: Pirimiphos-methyl 3 mg/m³ [8hr TWA])
Excipients - None established (use lowest practicable level)
Recommendation: Hydrocarbon solvent 15 ppm (8 hr TWA 30 ppm (15 min STEL)

**Exposure Standards outside:
The workplace:**

No exposure standards have been set for this product or the active ingredients.

Engineering measures

Exposure control measures:

Not practicable given nature of use.

Personal Protective Equipment

Detail specifications for equipment:

Respiratory system:

Respirator (organic vapour and particulate matter) when handling or applying.

Skin and body:

When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC/nitrile gloves and goggles and boots. For overhead application use head covering (preferably hooded overalls)

Hands:

Elbow-length barrier multilayer PVC/nitrile gloves

Eyes:

Wear safety goggles (or full face respirator with visor) when handling or applying.

General hygiene:

After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.

Biological Monitoring:

Regular users in direct control should undergo biological monitoring of cholinesterase activity. Consult with your GP or Occupational Health Advisor.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Amber liquid
Colour:	
Odour:	Aromatic solvent
pH:	7.1 (1% emulsion)
Vapour Pressure:	NA
Boiling Point:	Not available
Freezing/melting point:	Not available
Solubility:	Emulsifiable
Specific gravity or density:	1.033 g/ml (approx)
Vapour density:	> 1 (heavier than air)
Flash Point:	49°C (closed cup method)
Information for flammable material including:	
Octanol/water partition coefficient:	
Explosion limits:	Not available. Undiluted product may form explosive mixture in enclosed or poorly ventilated areas (if container not kept tightly closed). enclosed or poorly ventilated areas.
Oxidation properties:	Not an oxidizer

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to avoid:	
Materials to avoid:	Avoid mixing with strong acids, alkalis and oxidising agents such as chlorine compounds, ammonium nitrate etc
Hazardous decomposition Products:	Decomposition will not occur under normal conditions.
Hazardous polymerization:	
Specific Data:	
Hazardous reactions :	Products arising from combustion or thermal decomposition may be toxic, corrosive or flammable.

11. TOXICOLOGICAL INFORMATION

Note: Symptoms may be delayed for 24 hours or more following exposure.

Acute toxicity – Oral (Active ingredient) :	Acute Oral LD ₅₀ 1414mg/kg (rat)
Acute toxicity - Dermal :	Acute Dermal LD ₅₀ >2000 mg/kg (rat)
Acute toxicity – Inhalation:	Inhalation LC ₅₀ (4 hr) >5.04 mg/L (4 hr) (rat)
Inhalation:	
Ingestion:	Excessive sweating, salivation, headache, weakness, faintness, nausea, diarrhoea, small pupils, blurred vision, muscle twitching. The solvent in this product may cause bronchopneumonia or pulmonary oedema if aspirated into the lungs from ingestion or vomiting.
Skin irritation :	Mild skin irritant. Prolonged or repeated contact may result in degreasing of the skin and dermatitis. Can be absorbed via the skin (see symptoms under 'swallowed' above).

Eye irritation:	Mild irritation. May cause constriction of the pupil.
Sensitization :	None
Mutagenic Effects:	None
Carcinogenic Effects:	None
Chronic toxicity:	
Reproductive Effects:	Suspected
Tetragenic Effects:	Suspected
Systemic Effects:	Interferes with cholinesterase, an enzyme essential for the correct functioning of the nervous system.
Other information :	

12. ECOLOGICAL INFORMATION

This section describes effects that could occur if this material is not handled in accordance with this datasheet.

Ecotoxicity	Acute Oral LD50 (Bobwhite quail) 40 mg/kg LC50 (96 hr) (Rainbow trout) 0.64 mg/L LC50 (48 hr) (Daphnia) 0.21 µg/L Algae EC50 1.0 mg/L
Bees	Toxic to bees
Soil	Biodegradable. DT50 (soil) 3.5 – 30 days
Partition Co-efficient (Kow):	LogP = 4.2 (high)
Environmental Exposure Limit:	None established

13. DISPOSAL CONSIDERATIONS

Product:	Dispose of product by using it in accordance with the label. Do not burn. Waste product should be disposed of to a suitable landfill.
Methods of disposal :	CONTAINER DISPOSAL: Triple rinse container and add residue to spray tank. Submit clean empty container for recycling through Agrecovery otherwise bury in landfill. Dispose of otherwise bury in landfill.

14. TRANSPORT INFORMATION -International transport regulations

UN number:	31993
Class or Division:	3
Classification Code:	III
Packing Group:	N/A
Marine Pollutant:	FLAMMABLE LIQUID N.O.S. (AROMATIC HYDROCARBON LIQUID SOLVENT 36%, BUTANOL 2%) ORGANOPHOSPHORUS INSECTICIDE. (PIPIMIPHOS-METHYL 50%) MARINE POLLUTANT.
Proper shipping name :	
MTQ (non-Commercial):	250 litres
Passenger Service Vehicle:	Maximum quantity 1 litre
INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):	

15. REGULATORY INFORMATION

ACVM Registered Number: P8502
HSNO Approval Code: HSR000196

16. OTHER INFORMATION

Additional information:

Original Issue Date: 1 November 2012
Revision Date: 28th September 2017
Replaces: SDS ES453

Disclaimer EXCLUSION OF LIABILITY: PLEASE READ

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