

MATERIAL SAFETY DATA SHEET

According to EC Directive 2001/58/EEC Prepared: April 2018 Issue No: 5	
1. Identification of the Chemical Substance and company identification	4. First Aid Measures
 Product Name: Ectofly 1.25% w/v Pour-on Synonyms: Fly Off, Vectocert, Flyecto, Ovisect Use/ Application: Concentrate for dip solution for sheep. Company Undertaking Identification: Cross Vetpharm Group Ltd., Broomhill Road, Tallaght, Dublin 24, Ireland. Emergency Telephone Number: +353 1 4515011 	Eyes: Holding eyelids apart, wash immediately with plenty of eyewash solution or clean water for at least 15 minutes. Seek IMMEDIATE medical advice. Skin: Using gloves, remove contaminated clothing. Wash off immediately with water. Seek Medical advice. Ingestion: If swallowed accidentally, wash out mouth with water. Do not induce vomiting. Obtain medical attention. Inhalation: If there is respiratory distress, remove patient to fresh air, then obtain urgent medical attention. Inhalation is unlikely when the product is handled in accordance with normal veterinary practices. Medical Information: For specialist advice doctors should contact the nearest Poisons Information Centre.
2. Composition/Information on Ingredients.	5. Fire Fighting Measures
Ingredient CAS No. Hazard Classification Cypermethrin 52315-07-8 T, Xi, N: R20/21, R26/27/28, R36/37/38, R48, R51 Butyl dioxitol 112-34-5 R36	 Extinguishing Media: Dry chemicals, foam or CO₂. During fire, may emit noxious fumes by reaction with other materials. Use fire extinguishing media appropriate for surrounding materials. If possible avoid watercourse contamination. Fire and Explosion Hazards: Not classified as flammable. If involved in fire, may emit noxious fumes. Protective Measures and Equipment: Wear self-contained breathing apparatus and appropriate protective clothing.
3. Hazards Identification	6. Accidental Release Measures
 Human: Irritating to eyes, respiratory system and skin. May cause sensitisation by skin contact. Chronic: Prolonged exposure may cause serious health effects. Environment: Toxic to aquatic organisms. Cypermethrin is a synthetic pyrethroid and is a potential skin sensitiser which may induce paraesthesia or tingling effects on exposed areas of human skin. 	 Personal Precautions: For large spillages, evacuate area. Wear non-lined, synthetic rubber gloves (heavy duty gauntlet style nitrile at least 300mm in length and 0.5mm thick), wellington boots, waterproof (made of nitrile or PVC) trousers or leggings or coat or bib-apron and a face shield. Avoid personal contact with the product. Environmental Precautions: Avoid contamination of surrounding areas, water-courses, ground and waste water. Alert competent authorities of any discharges into watercourses, drains or sewers. Methods for cleanup/recovery: For large spillages contain spillage with sand, earth or any suitable absorbent or inert material. Transfer to container for disposal. For small spillages mop up with cloth and place in a suitably labelled, closed container for disposal by a reputable waste contractor.

7. Handling and Storage	10. Stability and reactivity
Handling: Read instructions before use. Do not use in an enclosed area and avoid inhaling the vapour. Wear suitable protective clothing . Wash splashes of dip concentrate from skin, eyes, clothing and equipment immediately. Do not eat or drink when using. Avoid contact with eyes or skin.	 Stability: Stable for the period of its shelf-life (2 years) from the date of manufacture when stored unopened below 25°C. Conditions to Avoid: Avoid excessive flames, heat and ignition sources.
Storage: Store only in the original container at room temperature, under lock and key, in a cupboard designed for pesticides. Protect from frost. Keep tightly closed, out of reach and sight of children. Do not store diluted dipwash overnight. Discard the diluted product after the day's dipping.	Materials to Avoid: Strong oxidising agents, strong acids, alkalis. Hazardous Decomposition Products: May emit noxious or irritant fumes if burnt in a hot fire.
Specific use: Use only for the intended purpose.	
8. Exposure Controls / Personal Protection	11. Toxicological Information
 Engineering Measures: Avoid unnecessary exposure to the product. Practice normal good hygiene. Personal Protective Equipment: Avoid contact with eyes and skin. Respiratory: Not required under normal conditions of use. Do not use in an enclosed area and avoid inhaling 	Inhalation: (cypermethrin) LC_{50} (4hr) = 78.9 mgM ⁻³ . A high concentration of product is irritant to the respiratory tract. Skin Contact: (cypermethrin; moderately irritating) Rabbit dermal LD_{50} = >2000 mgkg ⁻¹ . A transient tingling sensation of the skin may occur if cypermethrin comes into contact with the faces of some individuals. (Butyl dioxitol) LD_{50} Rat >2000 mgkg ⁻¹ .
 the vapour. Hand: Wear non-lined, synthetic rubber gloves (heavy duty gauntlet style nitrile) at least 300mm in length and 0.5mm thick. Skin: Wear wellington boots, waterproof (made of nitrile or PVC trousers or leggings or coat or bib-apron (made of nitrile or PVC). Eye: Full-face protection should be used if there is a patential for direct parameters or process. 	Eye Contact: Cypermethrin is moderately irritating to rabbit eyes. Ingestion: LD_{50} Rat >4000 mgkg ⁻¹ (cypermethrin; moderately toxic) Rat oral LD_{50} 57.5 mgkg ⁻¹ . Mouse oral LD_{50} 82-657 mgkg ⁻¹ . Rabbit oral LD_{50} > 2000 mgkg ⁻¹ . (Butyl dioxitol) LD_{50} Rat >2000 mgkg ⁻¹ . Chronic: Long term exposure to cypermethrin may cause pathological changes to the liver, lungs and skin.
potential for direct exposure to aerosols or splashes. Occupational exposure limits: No occupational exposure limits have been established for cypermethrin by OSHA, NIOSH or ACGIH.	Teratogenic Effects: Cypermethrin is not teratogenic. Mutagenic Effects: Cypermethrin is not classified as mutagenic. Carcinogenicity: No data available.
9. Physical/Chemical Properties	12. Ecological Information
Appearance: A blue, clear liquid. Physical state: Liquid.	Mobility: Cypermethrin has a strong tendency to adsorb to soil particles. It is therefore unlikely to cause groundwater contamination.
Odour: Faint odour.	Persistence and Degradability: On soils, cypermethrin
pH: No data available.	photodegrades rapidly with a half-life of 8 to 16 days. Cypermethrin is also subject to microbial degradation
Boiling Point / Melting Point: (Butyl dioxitol) 224 - 234°C / -68°C.	under aerobic conditions. Butyl dioxitol is biodegradable. Bioaccumulative potential: No data available.
Flash Point: (Butyl dioxitol) 105°C.	Aquatic toxicity: (cypermethrin; highly toxic to aquatic
Explosive Limits: (Butyl dioxitol) 0.9 Vol % (lower), 5.9 Vol % (upper).	life) 96-hr rainbow trout $LC_{50} = 0.82$ ppb, 96-hr bluegill sunfish $LC_{50} = 1.78$ ppb, 48-hr <i>Daphnia</i> $LC_{50} = 0.2$ ppb, 72-hr algae $EC_{50} = 36$ to 120 mgL ⁻¹ . (Butyl dioxitol) EC_{50} (24h) 3200 mgL ⁻¹ (<i>Daphnia magna</i>).
Vapour Pressure: (Butyl dioxitol) 0.08 hPa.	LC_{50} (96h) 1300 mgL ⁻¹ (<i>Lepomis macrochirus</i>)
Relative Density: 0.93 – 0.97	Effect on Effluent Treatment: No data available.
Solubility in Water/Fat: Fully miscible in water.	Other: Cypermethrin is highly toxic to bees and reptiles, but practically non-toxic to birds.
Partition Coefficient: (Butyl dioxitol) 0.56 log POW (n-octanol/water).	
Viscosity Dynamic: (Butyl dioxitol) 6.16 mPas @ 20°C.	

13. Disposal Considerations	15. Regulatory Information
 Product: Absorb in earth or sand and dispose of as solid waste in accordance with local regulations. Containers: Used containers should be flushed out with plenty of water and disposed of in a suitable waste incineration plant in accordance with official regulations. Special Environmental Handling Procedures: Do not allow product to reach ground water, watercourses, sewage or drainage systems. 14. Transport Information 	 Legal Categories: An aqueous solution used topically as a pour-on. For the treatment and control of headflies, and treatment of ticks and biting lice in sheep. For the prevention and treatment of blowfly strike in sheep. UK: POM-VPS Prescription only Medicine – to be supplied only on veterinary prescription by a veterinary surgeon or suitably qualified person. 16. Other Information
 Packaging (Size & Description): The product is provided in white high-density polyethylene Carrick Flat Bottom Containers with polypropylene closures and induction heat-sealed wadding, at 1 litre, 2.5 litre and 5 litre pack sizes. Transport Classification: UN 3352 (Pyrethroid Pesticide Liquid Toxic - Cypermethrin) 6.1 PG III A.D.R. Substance ID No: UN 3352 	Risk Phrases: Xn, N
Proper Shipping Name: Pyrethroid Pesticide Liquid Toxic. ICAO/IATA/IMDG Class: Class 6.1. IMDG Marine Pollutant.	 R36/37/38 - Irritating to eyes, skin and respiratory system. R43: - May cause sensitisation by skin contact. R51 - Toxic to aquatic organisms. S - Safety Phrases:
Subsidiary Risk: Not applicable. Packing Group: III. ADR Class: 6.1 Transport Hazard Symbol: <u>60</u> 3352	 S2 - Keep out of reach and sight of children. S7/9 - Keep container tightly closed in a well ventilated place. S24/25 - Avoid contact with eyes and skin. S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S35 - the material and its contents must be disposed of in a safe way.
Emergency Action Code: Not applicable. Other: Not applicable.	 S37/39 - Wear suitable protective gloves and eye/face protection. S45 - In case of accident or if you feel unwell, seek medical advice immediately (show label where possible). S61 - Avoid release into the environment. Refer to instructions on the safety data sheet.
	Revisions to the safety data sheet: Issue 0: Prepared February 2011, in accordance with 2001/58/EEC and CHIP/COSHH regulations as applied in the UK. Issue 1: Update to transport classification.
Discl	Issue 2: Update to transport classification.

Cross Vetpharm Group Limited has provided the information and/or recommendations as contained in this Material Safety Data Sheet on the strict basis that the information and/or recommendations are given without warranty, expressed or implied, statutory or otherwise, and no liability shall be accepted for the consequence of any reliance placed thereon.

Cross Vetpharm Group Limited has provided the information and/or recommendations as contained in this Material Safety Data Sheet in good faith and in an attempt to be helpful but on the strict basis that no liability shall be accepted by Cross Vetpharm Group Limited, its subsidiaries, shareholders, directors, officers, employees, agents and servants in respect of this matter.

A person in receipt of this Material Safety Data Sheet should exercise their own judgement on the information and/or recommendations and should, if necessary, obtain their own independent professional advice at their own expense in relation to the information and/or recommendations contained in this Material Safety Data Sheet.