1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Identifier
- Material Name: SUMIFLY BUFFALO FLY INSECTICIDE
- Trade Name: Sumifly
- Chemical Family: Pyrethroid

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against
- Intended Use: Veterinary product used as insecticide
- Restrictions on Use: Not for human use

Details of the Supplier of the Safety Data Sheet

Zoetis Australia Pty Ltd
ABN 94 156 476 425
Level 6, 5 Rider Boulevard
Rhodes NSW 2138 AUSTRALIA
(02) 8876 0444

Product Support/Technical Services Phone: 1800 814 883
Contact E-Mail: australia.animalhealth@zoetis.com

2. HAZARDS IDENTIFICATION

Appearance: Amber colored liquid

Classification of the Substance or Mixture

GHS - Classification
- Aspiration Toxicity: Category 1
- Acute Oral Toxicity: Category 4
- Skin Corrosion/Irritation: Category 2
- Serious Eye Damage/Eye Irritation: Category 2A
- Germ Cell Mutagenicity: Category 1B
- Carcinogenicity: Category 1B
- Specific target organ systemic toxicity (single exposure): Category 1
- Specific target organ systemic toxicity (repeated exposure): Category 1
- Acute aquatic toxicity: Category 1
- Chronic aquatic toxicity: Category 1
- Flammable liquids: Category 3

Label Elements

Signal Word: Danger
2. HAZARDS IDENTIFICATION

Hazard Statements:
H304 - May be fatal if swallowed and enters airways
H226 - Flammable liquid and vapor
H319 - Causes serious eye irritation
H315 - Causes skin irritation
H302 - Harmful if swallowed
H340 - May cause genetic defects
H350 - May cause cancer
H370 - Causes damage to organs (central nervous system, peripheral nervous system)
H372 - Causes damage to organs through prolonged or repeated exposure
(central nervous system, peripheral nervous system)
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements:
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P233 - Keep container tightly closed
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof electrical/ventilating/lighting/equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P273 - Avoid release to the environment
P370 + P378 - In case of fire: Use dry chemical, CO2, foam or water spray for extinction
P308 + P313 - IF exposed or concerned: Get medical attention/advice
P314 - Get medical attention/advice if you feel unwell
P301+ P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician
P331 - Do NOT induce vomiting
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water/shower
P332 + P313 - If skin irritation occurs: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
P391 - Collect spillage
P403 + P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container in accordance with all local and national regulations

Other Hazards
Short Term: May cause lung damage if swallowed. Vomiting of petroleum-containing liquids can result in chemical pneumonitis. Causes eye irritation. Signs and symptoms might include redness, swelling, blurred vision or pain. Causes skin irritation. Signs and symptoms might include skin rash, itching, redness or swelling. Central nervous system effects such as headache, dizziness, drowsiness, fatigue, and lack of muscular coordination can also occur.

Long Term: May cause effects on nervous system through prolonged or repeated exposure.

Known Clinical Effects: Pyrethroids can cause seizures and parasthesia (i.e. stinging, burning, itching, tingling, and numbness) of the face, hands, arms, forearms, and neck which may be worsened by contact with moisture and water. Other signs and symptoms of exposure include dizziness, salivation, headache, fatigue, vomiting, diarrhea, and irritability to sound and touch. Pyrethroids may cause sensitization and allergic reactions. Effects may be immediate or delayed.


Note: This document has been prepared in accordance with standards for workplace safety, which requires the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warning included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Ingredient</th>
<th>CAS Number</th>
<th>GHS Classification</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>PETROLEUM SOLVENT (C8-C10)</td>
<td>64742-95-6</td>
<td>Muta. 1B (H340) Carc. 1B (H350) Aspir. Cat 1 (H304)</td>
<td>60</td>
</tr>
<tr>
<td>Fenvalerate</td>
<td>51630-58-1</td>
<td>STOT SE 1 (H370) STOT RE 1 (H372) Acute Aq. 1 (H400) Chronic Aq. 1 (H410) Acute Tox 3 (H301) Eye Irrit. 2A (H319) Skin Irrit. 2 (H315)</td>
<td>20</td>
</tr>
</tbody>
</table>

Additional Information: Ingredient(s) indicated as hazardous have been assessed under standards for workplace

### 4. FIRST AID MEASURES

**Description of First Aid Measures**

**Eye Contact:** Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately.

**Skin Contact:** Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek medical attention.

**Ingestion:** In the event of swallowing this material, seek immediate medical attention. DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person.

**Inhalation:** Remove to fresh air and keep patient at rest. Seek medical attention immediately.

Most Important Symptoms and Effects, Both Acute and Delayed
Symptoms and Effects of Exposure:
For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.

Medical Conditions Aggravated by Exposure:
None known

Indication of the Immediate Medical Attention and Special Treatment Needed
Notes to Physician:
This material contains pyrethrin insecticides. In cases of overexposure, consult a poison control center for additional information concerning pyrethrin poisoning and treatment.

5. FIRE-FIGHTING MEASURES

Extinguishing Media:
Extinguish fires with CO2, extinguishing powder, foam, or water.

Special Hazards Arising from the Substance or Mixture
Hazardous Combustion Products:
Formation of toxic gases is possible during heating or fire.

Fire / Explosion Hazards:
Flammable liquid. May present a fire hazard under fire conditions. Vapors will form flammable or explosive mixtures with air at room temperature. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Fine particles (such as dust and mists) may fuel fires/explosions.

Advice for Fire-Fighters
In use, may form flammable/explosive vapour-air mixture. Move containers of this material from fire area. Extinguish and isolate from other flammable materials. During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Eliminate all sources of ignition and ventilate area using explosion-proof equipment. Ground and bond containers when transferring material. Ensure adequate ventilation. Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

Environmental Precautions
Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

Methods and Material for Containment and Cleaning Up
Measures for Cleaning / Collecting:
Contain the source of the spill if it is safe to do so. Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity). Absorb spills with non-combustible absorbent material and transfer into a labeled container for disposal. Prevent discharge to drains.

Additional Consideration for Large Spills:
Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel. Contain the source of the spill or leak if it is safe to do so. Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding procedures. Collect spill with a non-combustible absorbent material and transfer to labeled container for disposal. Prevent runoff from entering waterways or sewers. Prevent discharge to drains.

Additional Information:
Avoid inhalation and direct contact. Wear appropriate personal protective equipment during all clean-up activities. Prevent discharge to sewage systems and waterways.

7. HANDLING AND STORAGE

Precautions for Safe Handling
7. HANDLING AND STORAGE

**Flammable.** Flammable liquid and vapor - keep away from ignition sources and clean up spills promptly. Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding and bonding procedures. Avoid contact with eyes, skin, and clothing. Use appropriate personal protective equipment. Wash thoroughly after handling. Use with adequate ventilation. Avoid breathing vapor or mist. Prevent environmental releases. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids.

**Conditions for Safe Storage, Including any Incompatibilities**

**Storage Conditions:** Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks, flame, and other sources of ignition. Store away from direct sunlight. Keep out of reach of children.

**Storage Temperature:** Store below 30°C

**Specific end use(s):** Veterinary insecticide

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Control Parameters**

The purpose of the Occupational Exposure Band (OEB) classification system is to separate substances into different Hazard categories when the available data are sufficient to do so, but inadequate to establish an Occupational Exposure Limit (OEL). The OEB given is based upon an analysis of all currently available data; as such, this value may be subject to revision when new information becomes available.

**Fenvalerate**

**Zoetis OEB**

OEB 2 (control exposure to the range of 100ug/m³ to < 1000ug/m³)

**Exposure Controls**

**Engineering Controls:** Engineering controls should be used as the primary means to control exposures. Keep air contamination levels below the exposure limits or within the OEB range listed above in this section.

**Personal Protective Equipment:** Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

**Hands:** Wear impervious gloves if skin contact is possible.

**Eyes:** Wear safety goggles as minimum protection (face shield recommended if splashing is possible).

**Skin:** Wear impervious protective clothing to prevent skin contact - consider use of disposable clothing where appropriate.

**Respiratory protection:** Whenever air contamination (mist, vapor or odor) is generated, respiratory protection is recommended as a precaution to minimize exposure. If airborne exposures are within or exceed the Occupational Exposure Band (OEB) range, wear an appropriate respirator with a protection factor sufficient to control exposures to the bottom of the OEB range.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical State:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor:</td>
<td>Mild Solvent</td>
</tr>
<tr>
<td>Molecular Formula:</td>
<td>Mixture</td>
</tr>
<tr>
<td>Color:</td>
<td>Amber</td>
</tr>
<tr>
<td>Odor Threshold:</td>
<td>No data available.</td>
</tr>
<tr>
<td>Molecular Weight:</td>
<td>Mixture</td>
</tr>
<tr>
<td>Solvent Solubility:</td>
<td>No data available</td>
</tr>
<tr>
<td>Water Solubility:</td>
<td>Emulsifiable</td>
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<tr>
<td>pH:</td>
<td>No data available.</td>
</tr>
<tr>
<td>Melting/Freezing Point (°C):</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point (°C):</td>
<td>No data available.</td>
</tr>
</tbody>
</table>
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partition Coefficient</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation Rate (Gram/s)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure (kPa)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Density (g/ml)</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.925</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability</td>
<td>Autoignition Temperature (Solid) (°C): No data available</td>
</tr>
<tr>
<td></td>
<td>Flammability (Solids): No data available</td>
</tr>
<tr>
<td></td>
<td>Flash Point (Liquid) (°C): 43</td>
</tr>
<tr>
<td></td>
<td>Upper Explosive Limits (Liquid) (% by Vol.): No data available</td>
</tr>
<tr>
<td></td>
<td>Lower Explosive Limits (Liquid) (% by Vol.): No data available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No data available</td>
</tr>
<tr>
<td>Chemical Stability</td>
<td>Stable under normal conditions of use.</td>
</tr>
<tr>
<td>Possibility of Hazardous Reactions</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Avoid contact with strong oxidizers, such as bleach, direct sunlight, excessive heat, spark, or open flame. Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electrostatic discharge). Fine particles (such as dusts, mists and vapors) may fuel fires/explosions.</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>As a precautionary measure, keep away from strong oxidizers</td>
</tr>
<tr>
<td>Incompatible Materials</td>
<td>Toxic fumes of carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen chloride and other chlorine-containing compounds may be emitted.</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td></td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

General Information: Toxicological properties of the formulation have not been investigated. The information in this section describes the potential hazards of the individual ingredients and the formulation. Routes of exposure: eye contact, skin contact, inhalation

Acute Toxicity: (Species, Route, End Point, Dose)

**Fenvalerate**

<table>
<thead>
<tr>
<th>Species</th>
<th>Route</th>
<th>End Point</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rat</td>
<td>Oral</td>
<td>LD50</td>
<td>300 mg/kg</td>
</tr>
<tr>
<td>Rabbit</td>
<td>Dermal</td>
<td>LD50</td>
<td>&gt; 5000mg/kg</td>
</tr>
</tbody>
</table>

Ingestion Acute Toxicity: Harmful if swallowed. May cause lung damage if swallowed. Vomiting of petroleum-containing liquids can result in chemical pneumonitis.

Irritation / Sensitization: (Study Type, Species, Severity)

**Fenvalerate**

<table>
<thead>
<tr>
<th>Type</th>
<th>Species</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye</td>
<td>Rabbit</td>
<td>Irritant</td>
</tr>
</tbody>
</table>
11. TOXICOLOGICAL INFORMATION

Skin Irritation: Rabbit Irritant
Skin Sensitization: Guinea Pig Negative

Irritation / Sensitization Comments:
May cause eye irritation.

Repeated Dose Toxicity: (Duration, Species, Route, Dose, End Point, Target Organ)

- **Fenvalerate**
  - 13 Week(s) Rat Oral 7.5 mg/kg/day LOAEL Central nervous system
  - 6 Month(s) Dog Oral 6.75 mg/kg/day NOAEL Central Nervous System
  - 1 Year(s) Dog Oral 5 mg/kg/day NOAEL None identified

Reproduction & Development Toxicity: (Duration, Species, Route, Dose, End Point, Effect(s))

- **Fenvalerate**
  - Fertility and Embryonic Development: Rat Oral 250 mg/kg/day NOAEL No effects at maximum dose
  - Embryo / Fetal Development: Mouse Oral 50 mg/kg/day NOAEL Not Teratogenic
  - Embryo / Fetal Development: Rat Oral 50 mg/kg/day NOAEL Not Teratogenic

Genetic Toxicity: (Study Type, Cell Type/Organism, Result)

- **Fenvalerate**
  - Bacterial Mutagenicity (Ames): *Salmonella* Negative
  - Chromosome Aberration: Hamster Bone Marrow Negative
  - Dominant Lethal Assay: Mouse Negative

Carcinogenicity: (Duration, Species, Route, Dose, End Point, Effect(s))

- **Fenvalerate**
  - 2 Year(s) Mouse Oral 3000 mg/kg/day NOAEL Not carcinogenic

Carcinogen Status:
None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

IARC:
Group 3 (Not Classifiable)
12. ECOLOGICAL INFORMATION

Environmental Overview: Environmental properties of the formulation have not been investigated. The following information is available for the individual ingredients. Releases to the environment should be avoided.

Toxicity:

Aquatic Toxicity: (Species, Method, End Point, Duration, Result)

Fenvalerate

- *Daphnia magna* (Water Flea)  
  LC50 48 Hours 0.0043 mg/L
- *Pimephales promelas* (Fathead Minnow)  
  LC50 96 Hours 0.42 mg/L
- *Oncorhynchus mykiss* (Rainbow Trout)  
  LC50 96 Hours 0.00054 mg/L
- *Lepomis macrochirus* (Bluegill Sunfish)  
  LC50 96 Hours 0.00042 mg/L

Persistence and Degradability: No data available

Bio-accumulative Potential: No data available

Mobility in Soil: No data available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Should not be released into the environment. Dispose of waste in accordance with all applicable laws and regulations. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

This material is regulated for transportation as a hazardous material/dangerous good.

- **UN number:** UN 1993
- **UN proper shipping name:** Flammable Liquid, n.o.s. (petroleum solvent)
- **Transport hazard class(es):** 3
- **Packing group:** III
- **Environmental Hazard(s):** Marine Pollutant

**Flash Point (°C):** 43

Marine pollutant requirements apply only to quantities >5 Liters for liquids / >5 Kilograms for solids (per inner package) when shipped as per IMDG or ADR (effective year 2015 or greater) regulations. Please refer to the applicable dangerous goods regulations for additional information. Transport according to the requirements of the appropriate regulatory body.

**Flash Point (°C):** 43
15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

PETROLEUM SOLVENT (C8-C10)
- CERCLA/SARA 313 Emission reporting: Not Listed
- Australia (AICS): Present
- REACH - Carcinogens Category 2: Present
- REACH - Mutagens Category 2: Present

Fenvalerate
- CERCLA/SARA 313 Emission reporting: 1.0 %
- Australia (AICS): Present
- Standard for the Uniform Scheduling for Drugs and Poisons: Schedule 6
- APVMA Number: 47343

16. OTHER INFORMATION

Text of R phrases and GHS Classification abbreviations mentioned in Section 3
Germ cell mutagenicity-Cat.1B; H340 - May cause genetic defects
Carcinogenicity-Cat.1B; H350 - May cause cancer
Aspiration hazard-Cat.1; H304 - May be fatal if swallowed and enters airways
Hazardous to the aquatic environment, acute toxicity-Cat.1; H400 - Very toxic to aquatic life
Hazardous to the aquatic environment, chronic toxicity-Cat.1; H410 - Very toxic to aquatic life with long lasting effects
Specific target organ toxicity, single exposure-Cat.1; H370 - Causes damage to organs
Specific target organ toxicity, repeated exposure-Cat.1; H372 - Causes damage to organs through prolonged or repeated exposure
Acute toxicity, oral-Cat.3; H301 - Toxic if swallowed
Serious eye damage/eye irritation-Cat.2A; H319 - Causes serious eye irritation
Skin corrosion/irritation-Cat.2; H315 - Causes skin irritation

Carcinogenic: Category 2
Mutagenic: Category 2
Xn - Harmful
Xi - Irritant
N - Dangerous for the environment

R45 - May cause cancer.
R46 - May cause heritable genetic damage.
R65 - Harmful: may cause lung damage if swallowed.
R22 - Harmful if swallowed.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R36/38 - Irritating to eyes and skin.
R48/20/21/22 - Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

Data Sources: The data contained in this SDS may have been gathered from confidential internal sources, raw material suppliers, or from the published literature.

Reasons for Revision: Updated Section 1 - Identification of the Substance/Preparation and the Company/Undertaking. Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on Ingredients. Updated Section 7 - Handling and Storage. Updated Section 8 - Exposure Controls / Personal Protection. Updated Section 11 - Toxicology Information. Updated Section 12 - Ecological Information. Updated Section 14 - Transport Information. Updated Section 15 - Regulatory Information.

Zoetis Inc. believes that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time.

This SDS replaces version issued: October 2015

End of Safety Data Sheet