



## WSD Spurt off-Shears, Pour-on Sheep Lice Control

WSD Agribusiness Pty Ltd

Chemwatch Hazard Alert Code: 2

Chemwatch: 32-6557

Issue Date: 01/01/2013

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Print Date: 10/02/2016

Safety Data Sheet according to WHS and ADG requirements

Initial Date: Not Available

L.GHS.AUS.EN

### SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

#### Product Identifier

|                               |   |
|-------------------------------|---|
| Product name                  | WSD Spurt off-Shears, Pour-on Sheep Lice Control                            |
| Synonyms                      | Not Available   |
| Proper shipping name          | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains cypermethrin) |
| Other means of identification | Not Available   |

#### Relevant identified uses of the substance or mixture and uses advised against

|                          |  |
|--------------------------|--|
| Relevant identified uses | Pour on lousicide for sheep lambs. DO NOT USE in female sheep which are producing or may in the future produce milk or milk products for humans. DO NOT USE lambing ewes or ewes with lambs at foot; on adult sheep more than 24 hours off-shears or which cannot be cleanly shorn for whatever reason. DO NOT mix treated sheep with untreated sheep until 6 weeks after treatment. |
|--------------------------|--|

#### Details of the supplier of the safety data sheet

|                         |   |
|-------------------------|---|
| Registered company name | WSD Agribusiness Pty Ltd                          |
| Address                 | 7 Koojan Avenue South Guildford 6055 WA Australia |
| Telephone               | +61 8 9321 2888                                   |
| Fax                     | +61 8 9479 4088                                   |
| Website                 | Not Available                                     |
| Email                   | contact@wsdagribusiness.com                       |

#### Emergency telephone number

|                                   |               |
|-----------------------------------|---------------|
| Association / Organisation        | Not Available |
| Emergency telephone numbers       | Not Available |
| Other emergency telephone numbers | Not Available |

### SECTION 2 HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

**HAZARDOUS CHEMICAL. DANGEROUS GOODS.** According to the WHS Regulations and the ADG Code.

CHEMWATCH HAZARD RATINGS


Continued...

|              | Min | Max |
|--------------|-----|-----|
| Flammability | 1   |     |
| Toxicity     | 2   |     |
| Body Contact | 2   |     |
| Reactivity   | 1   |     |
| Chronic      | 2   |     |

0 = Minimum  
1 = Low  
2 = Moderate  
3 = High  
4 = Extreme

|                                      |  |
|--------------------------------------|--|
| <b>Poisons Schedule</b>              | S5   |
| <b>Classification</b> <sup>[1]</sup> | Skin Sensitizer Category 1, Chronic Aquatic Hazard Category 2  |
| <b>Legend:</b>                       | 1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI |

### Label elements

|                           |   |
|---------------------------|---|
| <b>GHS label elements</b> |  |
|---------------------------|---|

|                    |                |
|--------------------|----------------|
| <b>SIGNAL WORD</b> | <b>WARNING</b> |
|--------------------|----------------|

### Hazard statement(s)

|             |   |
|-------------|---|
| <b>H317</b> | May cause an allergic skin reaction             |
| <b>H411</b> | Toxic to aquatic life with long lasting effects |

### Precautionary statement(s) Prevention

|             |  |
|-------------|--|
| <b>P280</b> | Wear protective gloves/protective clothing/eye protection/face protection. |
| <b>P261</b> | Avoid breathing dust/fume/gas/mist/vapours/spray.                          |
| <b>P273</b> | Avoid release to the environment.  |
| <b>P272</b> | Contaminated work clothing should not be allowed out of the workplace.     |

### Precautionary statement(s) Response

|                  |  |
|------------------|--|
| <b>P363</b>      | Wash contaminated clothing before reuse.                         |
| <b>P302+P352</b> | IF ON SKIN: Wash with plenty of soap and water.                  |
| <b>P333+P313</b> | If skin irritation or rash occurs: Get medical advice/attention. |
| <b>P391</b>      | Collect spillage.  |

### Precautionary statement(s) Storage

Not Applicable

### Precautionary statement(s) Disposal

|             |   |
|-------------|---|
| <b>P501</b> | Dispose of contents/container in accordance with local regulations. |
|-------------|---|

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

### Substances

See section below for composition of Mixtures

### Mixtures

| CAS No     | %[weight] | Name                      |
|------------|-----------|---------------------------|
| 52315-07-8 | 2.5       | cypermethrin              |
|            | Balance   | glycol ether, proprietary |

## SECTION 4 FIRST AID MEASURES

### Description of first aid measures

|                    |  |
|--------------------|--|
| <b>Eye Contact</b> | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with fresh running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally</li> </ul> |
|--------------------|--|

Continued...

## WSD Spurt off-Shears, Pour-on Sheep Lice Control

|                     |  |
|---------------------|--|
|                     | <ul style="list-style-type: none"> <li>▶ lifting the upper and lower lids.</li> <li>▶ Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>   |
| <b>Skin Contact</b> | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>  |
| <b>Inhalation</b>   | <ul style="list-style-type: none"> <li>▶ If fumes or combustion products are inhaled remove from contaminated area.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor.</li> </ul>                      |
| <b>Ingestion</b>    | <ul style="list-style-type: none"> <li>▶ <b>If swallowed do NOT induce vomiting.</b></li> <li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>▶ Observe the patient carefully.</li> <li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>▶ Seek medical advice.</li> </ul> |

### Indication of any immediate medical attention and special treatment needed

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

## SECTION 5 FIREFIGHTING MEASURES

### Extinguishing media

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

### Special hazards arising from the substrate or mixture

|                             |  |
|-----------------------------|--|
| <b>Fire Incompatibility</b> | ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|--|

### Advice for firefighters

|                              |  |
|------------------------------|--|
| <b>Fire Fighting</b>         | <ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear full body protective clothing with breathing apparatus.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▶ Avoid spraying water onto liquid pools.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> </ul> |
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <li>▶ Combustible.</li> <li>▶ Slight fire hazard when exposed to heat or flame.</li> <li>▶ Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> <li>▶ May emit acrid smoke.</li> <li>▶ Mists containing combustible materials may be explosive.</li> </ul> <p>Combustion products include; carbon dioxide (CO<sub>2</sub>) other pyrolysis products typical of burning organic material</p>  |

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

|                     |  |
|---------------------|--|
| <b>Minor Spills</b> | Environmental hazard - contain spillage. |
|---------------------|--|

## WSD Spurt off-Shears, Pour-on Sheep Lice Control

|                     |  |
|---------------------|--|
|                     | <ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> <li>▶ Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>▶ Wipe up.</li> <li>▶ Place in a suitable, labelled container for waste disposal.</li> </ul>   |
| <b>Major Spills</b> | <p>Environmental hazard - contain spillage.<br/>Moderate hazard.</p> <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Increase ventilation.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Contain spill with sand, earth or vermiculite.</li> <li>▶ Collect recoverable product into labelled containers for recycling.</li> <li>▶ Absorb remaining product with sand, earth or vermiculite.</li> <li>▶ Collect solid residues and seal in labelled drums for disposal.</li> <li>▶ Wash area and prevent runoff into drains.</li> <li>▶ If contamination of drains or waterways occurs, advise emergency services.</li> </ul> |

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

## SECTION 7 HANDLING AND STORAGE

## Precautions for safe handling

|                          |   |
|--------------------------|---|
| <b>Safe handling</b>     | <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> <li>▶ <b>DO NOT enter confined spaces until atmosphere has been checked.</b></li> <li>▶ Avoid smoking, naked lights or ignition sources.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ When handling, <b>DO NOT eat, drink or smoke.</b></li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.</li> </ul> |
| <b>Other information</b> | <ul style="list-style-type: none"> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ Store in a cool, dry, well-ventilated area.</li> <li>▶ Store away from incompatible materials and foodstuff containers.</li> <li>▶ Protect containers against physical damage and check regularly for leaks.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>   |

## Conditions for safe storage, including any incompatibilities

|                                |  |
|--------------------------------|--|
| <b>Suitable container</b>      | <ul style="list-style-type: none"> <li>▶ Polyethylene or polypropylene container.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul> |
| <b>Storage incompatibility</b> | <ul style="list-style-type: none"> <li>▶ Avoid strong bases.</li> <li>▶ Avoid reaction with oxidising agents</li> </ul>  |

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

## Control parameters

## OCCUPATIONAL EXPOSURE LIMITS (OEL)

## INGREDIENT DATA

Not Available

## EMERGENCY LIMITS

| Ingredient | Material name | TEEL-1 | TEEL-2 | TEEL-3 |
|------------|---------------|--------|--------|--------|
|------------|---------------|--------|--------|--------|

Continued...

## WSD Spurt off-Shears, Pour-on Sheep Lice Control

|  |               |               |               |               |
|--|---------------|---------------|---------------|---------------|
| WSD Spurt off-Shears, Pour-on Sheep Lice Control | Not Available | Not Available | Not Available | Not Available |
|--|---------------|---------------|---------------|---------------|

| Ingredient   | Original IDLH | Revised IDLH  |
|--------------|---------------|---------------|
| cypermethrin | Not Available | Not Available |

### MATERIAL DATA

For pyrethrum and its active components:

IDLH Level: 5000 mg/m<sup>3</sup>


Pyrethrum and/or its active components, the pyrethrins, cause dermatitis and sensitisation. Ingestion of massive doses can induce convulsions, vomiting and bradycardia. Animals exhibit liver damage and death through respiratory failure. The recommended TLV-TWA is equivalent to an occupational dose of 0.7 mg/kg/day and is thought to minimise the potential for systemic effects. The TLV may NOT prevent the development of hypersensitisation, particularly among those with pre-existing allergies to pollen and related agents.

Synthetic pyrethrins (pyrethroids) often produce a range of toxic effects resembling pyrethrum; in the absence of a regulated exposure limit prudence dictates that the value for pyrethrum serves as a reference.

### Exposure controls

| <b>Appropriate engineering controls</b>  | <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.</p> <p>An approved self contained breathing apparatus (SCBA) may be required in some situations.</p> <p>Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.</p> |                                 |                        |  |                                 |   |                                  |  |                               |  |                                  |
|--|---|---------------------------------|------------------------|--|---------------------------------|---|----------------------------------|--|-------------------------------|--|----------------------------------|
|  | <table border="1"> <thead> <tr> <th>Type of Contaminant:</th> <th>Air Speed:</th> </tr> </thead> <tbody> <tr> <td>solvent, vapours, degreasing etc., evaporating from tank (in still air).</td> <td>0.25-0.5 m/s<br/>(50-100 f/min.)</td> </tr> <tr> <td>aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)</td> <td>0.5-1 m/s<br/>(100-200 f/min.)</td> </tr> <tr> <td>direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)</td> <td>1-2.5 m/s<br/>(200-500 f/min.)</td> </tr> <tr> <td>grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).</td> <td>2.5-10 m/s<br/>(500-2000 f/min.)</td> </tr> </tbody> </table>   | Type of Contaminant:            | Air Speed:             | solvent, vapours, degreasing etc., evaporating from tank (in still air). | 0.25-0.5 m/s<br>(50-100 f/min.) | aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) | 0.5-1 m/s<br>(100-200 f/min.)    | direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion) | 1-2.5 m/s<br>(200-500 f/min.) | grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion). | 2.5-10 m/s<br>(500-2000 f/min.)  |
|  | Type of Contaminant:  | Air Speed:                      |                        |  |                                 |   |                                  |  |                               |  |                                  |
|  | solvent, vapours, degreasing etc., evaporating from tank (in still air).  | 0.25-0.5 m/s<br>(50-100 f/min.) |                        |  |                                 |   |                                  |  |                               |  |                                  |
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|  | direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)  | 1-2.5 m/s<br>(200-500 f/min.)   |                        |  |                                 |   |                                  |  |                               |  |                                  |
|  | grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).  | 2.5-10 m/s<br>(500-2000 f/min.) |                        |  |                                 |   |                                  |  |                               |  |                                  |
|  | <p>Within each range the appropriate value depends on:</p> <table border="1"> <thead> <tr> <th>Lower end of the range</th> <th>Upper end of the range</th> </tr> </thead> <tbody> <tr> <td>1: Room air currents minimal or favourable to capture</td> <td>1: Disturbing room air currents</td> </tr> <tr> <td>2: Contaminants of low toxicity or of nuisance value only.</td> <td>2: Contaminants of high toxicity</td> </tr> <tr> <td>3: Intermittent, low production.</td> <td>3: High production, heavy use</td> </tr> <tr> <td>4: Large hood or large air mass in motion</td> <td>4: Small hood-local control only</td> </tr> </tbody> </table>   | Lower end of the range          | Upper end of the range | 1: Room air currents minimal or favourable to capture                    | 1: Disturbing room air currents | 2: Contaminants of low toxicity or of nuisance value only.  | 2: Contaminants of high toxicity | 3: Intermittent, low production.   | 3: High production, heavy use | 4: Large hood or large air mass in motion  | 4: Small hood-local control only |
|  | Lower end of the range  | Upper end of the range          |                        |  |                                 |   |                                  |  |                               |  |                                  |
|  | 1: Room air currents minimal or favourable to capture   | 1: Disturbing room air currents |                        |  |                                 |   |                                  |  |                               |  |                                  |
| 2: Contaminants of low toxicity or of nuisance value only.   | 2: Contaminants of high toxicity  |                                 |                        |  |                                 |   |                                  |  |                               |  |                                  |
| 3: Intermittent, low production.   | 3: High production, heavy use   |                                 |                        |  |                                 |   |                                  |  |                               |  |                                  |
| 4: Large hood or large air mass in motion  | 4: Small hood-local control only  |                                 |                        |  |                                 |   |                                  |  |                               |  |                                  |
| <p>Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.</p> |   |                                 |                        |  |                                 |   |                                  |  |                               |  |                                  |

## WSD Spurt off-Shears, Pour-on Sheep Lice Control

|                                |   |
|--------------------------------|---|
| <b>Personal protection</b>     |    |
| <b>Eye and face protection</b> | <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses 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 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], [AS/NZS 1336 or national equivalent]</li> </ul> |
| <b>Skin protection</b>         | See Hand protection below   |
| <b>Hands/feet protection</b>   | <ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul>  |
| <b>Body protection</b>         | See Other protection below  |
| <b>Other protection</b>        | <ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C. apron.</li> <li>▶ Barrier cream.</li> <li>▶ Skin cleansing cream.</li> <li>▶ Eye wash unit.</li> </ul>   |
| <b>Thermal hazards</b>         | Not Available   |

**Respiratory protection**

Not Available

Not Available

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

|   |                                       |  |                |
|---|---------------------------------------|--|----------------|
| <b>Appearance</b>                                   | Blue liquid; does not mix with water. |  |                |
| <b>Physical state</b>                               | Liquid                                | <b>Relative density (Water = 1)</b>            | 0.9-1          |
| <b>Odour</b>  | Not Available                         | <b>Partition coefficient n-octanol / water</b> | Not Available  |
| <b>Odour threshold</b>                              | Not Available                         | <b>Auto-ignition temperature (°C)</b>          | Not Available  |
| <b>pH (as supplied)</b>                             | Not Applicable                        | <b>Decomposition temperature</b>               | Not Available  |
| <b>Melting point / freezing point (°C)</b>          | Not Available                         | <b>Viscosity (cSt)</b>                         | Not Available  |
| <b>Initial boiling point and boiling range (°C)</b> | Not Available                         | <b>Molecular weight (g/mol)</b>                | Not Applicable |
| <b>Flash point (°C)</b>                             | 160                                   | <b>Taste</b>                                   | Not Available  |
| <b>Evaporation rate</b>                             | Not Available                         | <b>Explosive properties</b>                    | Not Available  |
| <b>Flammability</b>                                 | Not Applicable                        | <b>Oxidising properties</b>                    | Not Available  |
| <b>Upper Explosive Limit (%)</b>                    | Not Available                         | <b>Surface Tension (dyn/cm or mN/m)</b>        | Not Available  |
| <b>Lower Explosive Limit (%)</b>                    | Not Available                         | <b>Volatile Component (%vol)</b>               | Not Available  |
| <b>Vapour pressure (kPa)</b>                        | Not Available                         | <b>Gas group</b>                               | Not Available  |
| <b>Solubility in water (g/L)</b>                    | Immiscible                            | <b>pH as a solution (1%)</b>                   | Not Applicable |

Continued...

|                          |               |         |               |
|--------------------------|---------------|---------|---------------|
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available |
|--------------------------|---------------|---------|---------------|

## SECTION 10 STABILITY AND REACTIVITY

|                                    |  |
|------------------------------------|--|
| Reactivity                         | See section 7  |
| Chemical stability                 | <ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul> |
| Possibility of hazardous reactions | See section 7  |
| Conditions to avoid                | See section 7  |
| Incompatible materials             | See section 7  |
| Hazardous decomposition products   | See section 5  |

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

|              |   |
|--------------|---|
| Inhaled      | <p>The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of vapours, fumes or aerosols, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.</p> <p>Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p>  |
| Ingestion    | Accidental ingestion of the material may be damaging to the health of the individual.   |
| Skin Contact | <p>The liquid may be miscible with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives .</p> <p>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. Skin contact with natural pyrethrins may result in severe dermatitis and may also be associated with allergic rhinitis and asthma. Absorption through the skin may result in a toxic syndrome similar to that produced by inhalation. Systemic effects, following skin absorption, may include liver and kidney damage. Prolonged or repeated exposure may cause central nervous system effects and allergic skin reaction.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>  |
| Eye          | Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).  |
| Chronic      | <p>Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals.</p> <p>On the basis, primarily, of animal experiments, concern has been expressed by at least one classification body that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment.</p> <p>Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.</p> <p>Limited evidence shows that inhalation of the material is capable of inducing a sensitisation reaction in a significant number of individuals at a greater frequency than would be expected from the response of a normal population.</p> <p>Pulmonary sensitisation, resulting in hyperactive airway dysfunction and pulmonary allergy may be accompanied by fatigue, malaise and aching. Significant symptoms of exposure may persist for extended periods, even after exposure ceases. Symptoms can be activated by a variety of nonspecific environmental stimuli such as automobile exhaust, perfumes and passive smoking.</p> |

|  |  |                                |
|--|--|--------------------------------|
| WSD Spurt off-Shears, Pour-on Sheep Lice Control | TOXICITY   | IRRITATION                     |
|  | Not Available  | Not Available                  |
| cypermethrin                                     | TOXICITY   | IRRITATION                     |
|  | dermal (rat) LD50: >1600 mg/kg <sup>[2]</sup>        | *[EPA Report]                  |
|  | Inhalation (rat) LC50: 2.5 mg/L/4h <sup>[2]</sup>    | Eye (rabbit): mild*            |
|  | Inhalation (rat) LC50: 7.889 mg/L/4h <sup>*[2]</sup> | Skin (rabbit): non irritating* |
|  | Oral (rat) LD50: 57 mg/kg <sup>*[2]</sup>            |                                |

## WSD Spurt off-Shears, Pour-on Sheep Lice Control

**Legend:** 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.\* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

## CYPERMETHRIN

The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.

No significant acute toxicological data identified in literature search.

For cypermethrin:

Toxicological Effects:

Acute toxicity: Cypermethrin is a moderately toxic material by dermal absorption or ingestion. Symptoms of high dermal exposure include numbness, tingling, itching, burning sensation, loss of bladder control, incoordination, seizures, and possible death. Pyrethroids like cypermethrin may adversely affect the central nervous system. Symptoms of high-dose ingestion include nausea, prolonged vomiting, stomach pains, and diarrhea which progresses to convulsions, unconsciousness, and coma. Cypermethrin is a slight skin or eye irritant, and may cause allergic skin reactions. The oral LD50 for cypermethrin in rats is 250 mg/kg (in corn oil) or 4123 mg/kg (in water). EPA reports an oral LD50 of 187 to 326 mg/kg in male rats and 150 to 500 mg/kg in female rats. The oral LD50 varies from 367 to 2000 mg/kg in female rats, and from 82 to 779 mg/kg in mice, depending on the ratio of cis/trans- isomers present. This wide variation in toxicity may reflect different mixtures of isomers in the materials tested. The dermal LD50 in rats is 1600 mg/kg and in rabbits is greater than 2000 mg/kg.

Chronic toxicity: Long-term exposure to cypermethrin during adulthood is found to induce dopaminergic neurodegeneration in rats, and postnatal exposure enhances the susceptibility of animals to dopaminergic neurodegeneration if rechallenged during adulthood

Reproductive effects: No adverse effects on reproduction were observed in a three-generation study with rats given doses of 37.5 mg/kg/day, the highest dose tested.

A Chinese study in male rats, showed that cypermethrin can exhibit a toxic effect on the reproductive system. After 15 days of continual dosing, both androgen receptor levels and serum testosterone levels were significantly reduced. These data suggested that cypermethrin can induce impairments of the structure of seminiferous tubules and spermatogenesis in male rats.

Teratogenic effects: Cypermethrin is not teratogenic. No birth defects were observed in the offspring of rats given doses as high as 70 mg/kg/day nor in the offspring of rabbits given doses as high as 30 mg/kg/day

If exposed to cypermethrin during pregnancy, rats give birth to offspring with developmental delays. In male rats exposed to cypermethrin, the proportion of abnormal sperm increases. It causes genetic damage: chromosomal abnormalities increased in bone marrow and spleen cells when mice were exposed to cypermethrin.

Mutagenic effects: Cypermethrin is not mutagenic, but tests with very high doses on mice caused a temporary increase in the number of bone marrow cells with micronuclei. Other tests for mutagenic effects in human, bacterial, and hamster cell cultures and in live mice have been negative.

Carcinogenic effects: EPA has classified cypermethrin as a possible human carcinogen because available information is inconclusive. It caused benign lung tumors in female mice at the highest dose tested (229 mg/kg/day); however, no tumours occurred in rats given high doses of up to 75 mg/kg/day.

Cypermethrin has been linked to an increase in bone marrow micronuclei in both mice and humans.

One study showed that cypermethrin inhibits "gap junctional intercellular communication", which plays an important role in cell growth and is inhibited by carcinogenic agents

Organ toxicity: Pyrethroids like cypermethrin may cause adverse effects on the central nervous system. Rats fed high doses (37.5 mg/kg) of the cis-isomer of cypermethrin for five weeks exhibited severe motor incoordination, while 20 to 30% of rats fed 85 mg/kg died 4 to 17 days after treatment began. Long-term feeding studies have shown increased liver and kidney weights and adverse changes in liver tissues in test animals. Pathological changes in the cortex of the thymus, liver, adrenal glands, lungs, and skin were observed in rabbits repeatedly fed high doses of cypermethrin.

Fate in humans and animals: In humans, urinary excretion of cypermethrin metabolites was complete 48 hours after the last of five doses of 1.5 mg/kg/day. Studies in rats have shown that cypermethrin is rapidly metabolized by hydroxylation and cleavage, with over 99% being eliminated within hours. The remaining 1% becomes stored in body fat. This portion is eliminated slowly, with a half-life of 18 days for the cis-isomer and 3.4 days for the trans-isomer.

Exposure to the material for prolonged periods may cause physical defects in the developing embryo (teratogenesis).

**NOTE:** Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.

ADI: 0.05 mg/kg/day NOEL: 4.7 mg/kg/day Somnolence, convulsions, tremor, spasticity, muscle weakness, respiratory

Continued...



## WSD Spurt off-Shears, Pour-on Sheep Lice Control

obstruction, lachrymation, normocytic anaemia, leukopenia, ataxia, microcytosis without anaemia, changes in erythrocyte/leucocyte (WBC), allergic disease in cellular and humoral immune response, proteinuria, hypoglycaemia, cutaneous sensitisation, delayed hypersensitivity, tumours, effects on newborn, effects on embryo/ foetus, paternal effects, specific developmental abnormalities (urogenital system, blood and lymphatic systems, immune and reticuloendothelial system) recorded. Tumourigenic/ neoplastic by RTECS criteria (facilitates the action of a known carcinogen)

|  |   |                                 |   |
|--|---|---------------------------------|---|
| <b>Acute Toxicity</b>                    | ⊖ | <b>Carcinogenicity</b>          | ⊖ |
| <b>Skin Irritation/Corrosion</b>         | ⊖ | <b>Reproductivity</b>           | ⊖ |
| <b>Serious Eye Damage/Irritation</b>     | ⊖ | <b>STOT - Single Exposure</b>   | ⊖ |
| <b>Respiratory or Skin sensitisation</b> | ✓ | <b>STOT - Repeated Exposure</b> | ⊖ |
| <b>Mutagenicity</b>                      | ⊖ | <b>Aspiration Hazard</b>        | ⊖ |

**Legend:** ✗ – Data available but does not fill the criteria for classification  
 ✓ – Data required to make classification available  
 ⊖ – Data Not Available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

## Toxicity

| Ingredient   | Endpoint | Test Duration (hr) | Species                       | Value         | Source |
|--------------|----------|--------------------|-------------------------------|---------------|--------|
| cypermethrin | EC50     | 96                 | Algae or other aquatic plants | 0.026mg/L     | 3      |
| cypermethrin | BCF      | 24                 | Algae or other aquatic plants | 0.05mg/L      | 4      |
| cypermethrin | EC50     | 120                | Crustacea                     | 0.0000075mg/L | 4      |
| cypermethrin | EC50     | 48                 | Crustacea                     | 0.000007mg/L  | 4      |
| cypermethrin | LC50     | 96                 | Fish                          | 0.00023mg/L   | 4      |
| cypermethrin | NOEC     | 120                | Fish                          | 0.000001mg/L  | 4      |

**Legend:** Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Toxic to bees.

**DO NOT** discharge into sewer or waterways.

## Persistence and degradability

| Ingredient   | Persistence: Water/Soil | Persistence: Air |
|--------------|-------------------------|------------------|
| cypermethrin | HIGH                    | HIGH             |

## Bioaccumulative potential

| Ingredient   | Bioaccumulation        |
|--------------|------------------------|
| cypermethrin | HIGH (LogKOW = 6.3752) |

## Mobility in soil

| Ingredient   | Mobility           |
|--------------|--------------------|
| cypermethrin | LOW (KOC = 108000) |



## SECTION 13 DISPOSAL CONSIDERATIONS

## Waste treatment methods

| Product / Packaging disposal |   |
|------------------------------|---|
|                              | <ul style="list-style-type: none"> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Authority for disposal.</li> <li>▶ Bury or incinerate residue at an approved site.</li> <li>▶ Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul> |

## SECTION 14 TRANSPORT INFORMATION

## Labels Required

|                  |   |
|------------------|---|
|                  |  |
| Marine Pollutant |  |
| HAZCHEM          | •3Z   |

## Land transport (ADG)

|                              |   |                      |
|------------------------------|---|----------------------|
| UN number                    | 3082  |                      |
| Packing group                | III   |                      |
| UN proper shipping name      | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains cypermethrin) |                      |
| Environmental hazard         | Not Applicable  |                      |
| Transport hazard class(es)   | Class   | 9                    |
|                              | Subrisk   | Not Applicable       |
| Special precautions for user | Special provisions  | 179 274 331 335 AU01 |
|                              | Limited quantity  | 5 L                  |

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;

(a) packagings;

(b) IBCs; or

(c) any other receptacle not exceeding 500 kg(L).

- Australian Special Provisions (SP AU01) - ADG Code 7th Ed.

## Air transport (ICAO-IATA / DGR)

|                              |   |                |
|------------------------------|---|----------------|
| UN number                    | 3082  |                |
| Packing group                | III   |                |
| UN proper shipping name      | Environmentally hazardous substance, liquid, n.o.s. * (contains cypermethrin) |                |
| Environmental hazard         | Not Applicable  |                |
| Transport hazard class(es)   | ICAO/IATA Class   | 9              |
|                              | ICAO / IATA Subrisk   | Not Applicable |
|                              | ERG Code  | 9L             |
| Special precautions for user | Special provisions  | A97 A158 A197  |
|                              | Cargo Only Packing Instructions   | 964            |
|                              | Cargo Only Maximum Qty / Pack   | 450 L          |
|                              | Passenger and Cargo Packing Instructions                                      | 964            |
|                              | Passenger and Cargo Maximum Qty / Pack  | 450 L          |
|                              | Passenger and Cargo Limited Quantity Packing Instructions                     | Y964           |
|                              | Passenger and Cargo Limited Maximum Qty / Pack                                | 30 kg G        |

## Sea transport (IMDG-Code / GGVSee)

|                         |   |  |
|-------------------------|---|--|
| UN number               | 3082  |  |
| Packing group           | III   |  |
| UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains cypermethrin) |  |

## WSD Spurt off-Shears, Pour-on Sheep Lice Control

|                                     |                    |                |
|-------------------------------------|--------------------|----------------|
| <b>Environmental hazard</b>         | Marine Pollutant   |                |
| <b>Transport hazard class(es)</b>   | IMDG Class         | 9              |
|                                     | IMDG Subrisk       | Not Applicable |
| <b>Special precautions for user</b> | EMS Number         | F-A, S-F       |
|                                     | Special provisions | 274 335 969    |
|                                     | Limited Quantities | 5 L            |

## SECTION 15 REGULATORY INFORMATION

## Safety, health and environmental regulations / legislation specific for the substance or mixture

## CYPERMETHRIN(52315-07-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Substances Information System - Consolidated Lists  
Australia Inventory of Chemical Substances (AICS)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

| National Inventory            | Status   |
|-------------------------------|--|
| Australia - AICS              | Y  |
| Canada - DSL                  | N (cypermethrin)   |
| Canada - NDSL                 | N (cypermethrin)   |
| China - IECSC                 | Y  |
| Europe - EINEC / ELINCS / NLP | Y  |
| Japan - ENCS                  | N (cypermethrin)   |
| Korea - KECL                  | Y  |
| New Zealand - NZIoC           | Y  |
| Philippines - PICCS           | Y  |
| USA - TSCA                    | N (cypermethrin)   |
| <b>Legend:</b>                | Y = All ingredients are on the inventory<br>N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets) |

## SECTION 16 OTHER INFORMATION

## Other information

## Ingredients with multiple cas numbers

| Name         | CAS No  |
|--------------|---|
| cypermethrin | 137497-61-1, 139203-31-9, 142443-95-6, 146909-55-9, 186554-45-0, 52315-07-8, 65731-84-2, 67375-30-8, 69865-47-0, 71697-59-1, 86752-99-0, 86753-92-6, 88161-75-5, 97955-44-7 |

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](http://www.chemwatch.net)

The 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.

## Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average

PC—STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit.

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

## WSD Spurt off-Shears, Pour-on Sheep Lice Control

TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index

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TEL (+61 3) 9572 4700.