SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Trade name: Coopex® Insecticidal Dusting Powder Industrial Strength
Product code (UVP): 06068847

1.2 Relevant identified uses of the substance or mixture and uses advised against
Use: Insecticide

1.3 Details of the supplier of the safety data sheet
Supplier: Bayer CropScience Pty Ltd.
ABN 87 000 226 022
Level 1, 8 Redfern Road
3123 Hawthorn East
Victoria
Australia
Telephone: (03) 9248 6888
Telefax: (03) 9248 6800
Responsible Department: 1800 804 479 Technical Information Service
Website: www.environmentalscience.bayer.com.au

1.4 Emergency telephone no.
Emergency telephone no.: 1800 033 111 IXOM Operations Pty Ltd

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Australia. GHS Hazardous Chemical Information List (Hazardous Substances Information System (HSIS))
Skin sensitisation: Category 1
H317 May cause an allergic skin reaction.
Acute aquatic toxicity: Category 1
H400 Very toxic to aquatic life.
Chronic aquatic toxicity: Category 1
H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements
Hazard label for supply/use required.
Hazardous components which must be listed on the label:
Permethrin

Signal word: Warning
Hazard statements
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements

P261 Avoid breathing dust.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
P302 + P352 IF ON SKIN: Wash with plenty of water/soap.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards
No other hazards known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature
Permethrin 25:75 10g/kg
Chemical nature Dustable powder (DP)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permethrin</td>
<td>52645-53-1</td>
<td>1.06</td>
</tr>
<tr>
<td>Talc</td>
<td>14807-96-6</td>
<td>0.88</td>
</tr>
<tr>
<td>Other ingredients (non-hazardous) to 100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Safety Data Sheet to the doctor.

4.1 Description of first aid measures

Inhalation Keep patient warm and at rest. If symptoms persist, call a physician. Oxygen or artificial respiration if needed.

Skin contact Take off contaminated clothing and shoes immediately. Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. In case of skin irritation, application of oils or lotions containing vitamin E may be considered. If symptoms persist, call a physician. Clean contaminated clothing and shoes before re-use or discard if they cannot be thoroughly cleaned.

Ingestion Rinse mouth. Do NOT induce vomiting. Keep patient warm and at rest. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed
Symptoms
The following symptoms may occur: Prolonged and repeated contact with skin, eyes or mucous membranes may cause irritation. Burning sensation, Cough, Sneezing, Respiratory disorder, Pulmonary oedema, Nausea, Vomiting, Diarrhoea, Abdominal pain, Salivation, Dizziness, Blurred vision, Headache, anorexia, Somnolence, Coma, Seizures, Convulsions, Tremors, Ataxia, Muscular fasciculation

4.3 Indication of any immediate medical attention and special treatment needed
Treatment
Treat symptomatically. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate. There is no specific antidote. Monitor: respiratory and cardiac functions. ECG - monitoring (Electrocardiogram). Contraindication: atropine.

SECTION 5. FIRE FIGHTING MEASURES

5.1 Extinguishing media
Suitable Foam, Dry powder, Water spray
Unsuitable High volume water jet

5.2 Special hazards arising from the substance or mixture
In the event of fire the following may be released: Hydrogen chloride (HCl), Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters
Special protective equipment for firefighters
Wear self-contained breathing apparatus and protective suit.

Further information
Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Whenever possible, contain fire-fighting water by diking area with sand or earth.

Hazchem Code
2Z

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Precautions
Use personal protective equipment. Avoid contact with spilled product or contaminated surfaces. Keep unauthorized people away. An emergency shower must be readily accessible to the work area.

6.2 Environmental precautions
Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities.
6.3 Methods and materials for containment and cleaning up

Methods for cleaning up: Sweep up or vacuum up spillage and collect in suitable container for disposal. Collect and transfer the product into a properly labelled and tightly closed container.

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling: Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

Hygiene measures: Avoid contact with skin, eyes and clothing.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permethrin</td>
<td>52645-53-1</td>
<td>5 mg/m³ (TWA)</td>
<td>12 2011</td>
<td>AU NOEL</td>
</tr>
<tr>
<td>Permethrin</td>
<td>52645-53-1</td>
<td>10 mg/m³ (SK-SEN)</td>
<td></td>
<td>OES BCS*</td>
</tr>
</tbody>
</table>

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

8.2 Exposure controls

Personal protective equipment - End user

Respiratory protection: Disposable dust mask

Hand protection: Rubber gloves

Skin and body protection: Long-sleeved shirt and long pants

Engineering Controls

Advice on safe handling: Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form: powder
SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity
Not applicable

10.5 Incompatible materials
Iron, Oxidizing agents, Strong acids, Halogenated compounds

10.6 Hazardous decomposition products
Thermal decomposition can lead to release of:
- Hydrogen chloride (HCl)
- Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity
LD50 (Rat) 1,479 mg/kg
The value mentioned relates to the active ingredient permethrin.

Acute inhalation toxicity
LC50 (Rat) 685 mg/m³
Exposure time: 3 h
The value mentioned relates to the active ingredient permethrin.

Acute dermal toxicity
LD50 (Rabbit) > 2,000 mg/kg
The value mentioned relates to the active ingredient permethrin.

Skin irritation
Mild skin irritation. (Rabbit)
The value mentioned relates to the active ingredient permethrin.

Eye irritation
Mild eye irritation. (Rabbit)
The value mentioned relates to the active ingredient permethrin.

Sensitisation
Non-sensitizing.
The value mentioned relates to the active ingredient permethrin.

Assessment mutagenicity
Permethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity
Permethrin caused at high dose levels an increased incidence of tumours in mice in the following organ(s): Liver, Lungs. The mechanism that triggers tumours in rodents is not relevant for the low exposures encountered under normal use conditions.

Assessment toxicity to reproduction
Permethrin did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity
Permethrin did not cause developmental toxicity in rats and rabbits.

Assessment repeated dose toxicity
Permethrin did not cause specific target organ toxicity in experimental animal studies.

Aspiration hazard
Based on available data, the classification criteria are not met.
Information on likely routes of exposure
Dusts may cause upper respiratory tract irritation, coughing.
May cause irritation. Avoid contact with skin.
May cause mild irritation to eyes.
Low acute oral toxicity.

Early onset symptoms related to exposure
Refer to Section 4

Delayed health effects from exposure
Refer to Section 11

Exposure levels and health effects
Refer to Section 4

Interactive effects
Not known

When specific chemical data is not available
Not applicable

Mixture of chemicals
Refer to Section 2.1

Further information
Cutaneous sensations may occur, such as burning or stinging on the face and mucosae. However, these sensations cause no lesions and are of a transitory nature (max. 24 hours).

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to fish
LC50 (Poecilia reticulata (guppy)) 0.0076 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient permethrin.

Toxicity to aquatic invertebrates
EC50 (Daphnia magna (Water flea)) 0.00017 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient permethrin.

Toxicity to aquatic plants
EC50 (Raphidocelis subcapitata (freshwater green alga)) 0.497 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient permethrin.

12.2 Persistence and degradability
Biodegradability
Permethrin: Not rapidly biodegradable

Koc
Permethrin: Koc: 100000

12.3 Bioaccumulative potential
Bioaccumulation
Permethrin: Bioconcentration factor (BCF) 300
Does not bioaccumulate.
12.4 Mobility in soil
Mobility in soil: Permethrin: Immobile in soil

12.5 Other adverse effects
Additional ecological information: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Metal drums and plastic containers:
Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

SECTION 14. TRANSPORT INFORMATION

ADG
UN number: 3077
Transport hazard class(es): 9
Subsidiary Risk: None
Packaging group: III
Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PERMETHRIN MIXTURE)
Hazchem Code: 2Z

According to AU01, Environmentally Hazardous Substances in packagings, IBC or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code.

IMDG
UN number: 3077
Transport hazard class(es): 9
Subsidiary Risk: None
Packaging group: III
Marine pollutant: YES
Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PERMETHRIN MIXTURE)

IATA
UN number: 3077
Transport hazard class(es): 9
Subsidiary Risk: None
Packaging group: III
Environm. Hazardous Mark: YES
Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PERMETHRIN MIXTURE)
SECTION 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994
Australian Pesticides and Veterinary Medicines Authority approval number: 33210

Hazardous Classification

Hazardous (National Occupational Health and Safety Commission - NOHSC)

SUSMP classification (Poison Schedule)

Exempt (Standard for the Uniform Scheduling of Medicines and Poisons)

SECTION 16. OTHER INFORMATION

Trademark information

Coopex® is a registered trademark of the Bayer Group.

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

Abbreviations and acronyms

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE Acute toxicity estimate
AU OEL Australia, OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)
CAS-Nr. Chemical Abstracts Service number
CEILING Ceiling Limit Value
Conc. Concentration
EC-No. European community number
ECx Effective concentration to x %
EINECS European inventory of existing commercial substances
ELINCS European list of notified chemical substances
EN European Standard
EU European Union
IATA International Air Transport Association
IBC International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx Inhibition concentration to x %
IMDG International Maritime Dangerous Goods
LCx Lethal concentration to x %
Changes since the last version are highlighted in the margin. This version replaces all previous versions.