SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Trade name Monceren® 125 DS Fungicide
Product code (UVP) 04405684

1.2 Relevant identified uses of the substance or mixture and uses advised against
Use Fungicide, Seed treatment

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.crop.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
Classification in accordance with Australian GHS Regulation
Chronic aquatic toxicity: Category 2
H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements
No hazard label for supply/use required.

2.3 Other hazards
Dust may form explosive mixture in air.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature
Pencycuron 12,5 %
Powder for dry seed treatment (DS)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pencycuron</td>
<td>66063-05-6</td>
<td>12.50</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
Call a physician or poison control center immediately. Move to fresh air. Keep patient warm and at rest.

Skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and water. If symptoms persist, call a physician.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
No symptoms known or expected.

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.

SECTION 5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable
Water spray, Carbon dioxide (CO2), Foam, Sand

5.2 Special hazards arising from the substance or mixture

In the event of fire the following may be released: Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for firefighters
In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

Further information
Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses. Whenever possible, contain fire-fighting water by diking area with sand or earth.
SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Precautions Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke. Use personal protective equipment. Keep unauthorized people away. Remove all sources of ignition.

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 Avoid dust formation. Use mechanical handling equipment. Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

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 Use only in area provided with appropriate exhaust ventilation.
Advice on protection against fire and explosion Dust may form explosive mixture in air. Keep away from heat and sources of ignition.
Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separately. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt). Wash hands before breaks and immediately after handling the product.

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. Store in original container. Store in a place accessible by authorized persons only.
Advice on common storage Keep away from food, drink and animal feedingstuffs.

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>Pencycuron</td>
<td>66063-05-6</td>
<td>5 mg/m3</td>
<td></td>
<td>OES BCS*</td>
</tr>
</tbody>
</table>
8.2 Exposure controls

Respiratory protection
Wear respirator with a particle filter mask (protection factor 4) conforming to European norm EN149FFP1 or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer’s instructions regarding wearing and maintenance.

Hand protection
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

<table>
<thead>
<tr>
<th>Material</th>
<th>Nitrile rubber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of permeability</td>
<td>&gt; 480 min</td>
</tr>
<tr>
<td>Glove thickness</td>
<td>&gt; 0.4 mm</td>
</tr>
<tr>
<td>Protective index</td>
<td>Class 6</td>
</tr>
<tr>
<td>Directive</td>
<td>Protective gloves complying with EN 374.</td>
</tr>
</tbody>
</table>

Eye protection
Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

Skin and body protection
Wear standard coveralls and Category 3 Type 5 suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

General protective measures
In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the above mentioned recommendations would apply.

Engineering Controls
Advice on safe handling
Use only in area provided with appropriate exhaust ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Form: powder
Colour
red
Odour
weak, characteristic
Flammability (solid, gas)
The product is not highly flammable.
Minimum ignition energy
3 - 10 mJ
Dust explosion class
capable of causing a dust explosion (modified Hartmann tube)
Partition coefficient: n-octanol/water
Pencycuron: log Pow: 4.68 at 20 °C
Impact sensitivity
Not impact sensitive.
Oxidizing properties
No oxidizing properties
Explosivity
Not explosive
92/69/EEC, A.14 / OECD 113

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity
Thermal decomposition
Stable under normal conditions.
10.2 Chemical stability
Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions
No hazardous reactions when stored and handled according to prescribed instructions.
10.4 Conditions to avoid
Extremes of temperature and direct sunlight.
10.5 Incompatible materials
Acids, Store only in the original container.
10.6 Hazardous decomposition products
Thermal decomposition can lead to release of:
Hydrogen chloride (HCl)
Hydrogen cyanide (hydrocyanic acid)
Carbon monoxide
Nitrogen oxides (NOx)

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute oral toxicity
LD50 (Rat) > 5,000 mg/kg
Acute inhalation toxicity
LC50 (Rat) > 3.043 mg/l
Exposure time: 4 h
Highest attainable concentration.
Determined in the form of a respirable aerosol.
Test conducted with a similar formulation.
Acute dermal toxicity
LD50 (Rat) > 2,000 mg/kg
Skin irritation
No skin irritation (Rabbit)
Test conducted with a similar formulation.

Eye irritation
No eye irritation (Rabbit)
Test conducted with a similar formulation.

Sensitisation
Non-sensitizing (Guinea pig)
OECD Test Guideline 406, Buehler test

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

Assessment carcinogenicity
Pencycuron was not carcinogenic in lifetime feeding studies in rats and mice.

Assessment toxicity to reproduction
Pencycuron caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Pencycuron is related to parental toxicity.

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

Assessment STOT Specific target organ toxicity – repeated exposure
Pencycuron 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
May be harmful if inhaled.
May cause skin irritation.
May cause eye irritation.
May be harmful if swallowed.

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
No further toxicological information is available.
SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish
LC50 (Lepomis macrochirus (Bluegill sunfish)) 127 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient pencycuron.

LC50 (Oncorhynchus mykiss (rainbow trout)) > 690 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient pencycuron.

Toxicity to aquatic invertebrates
EC50 (Daphnia magna (Water flea)) > 100 mg/l
Exposure time: 48 h

Chronic toxicity to aquatic invertebrates
NOEC (Daphnia (water flea)): 0.0992 mg/l
Exposure time: 21 d
The value mentioned relates to the active ingredient.

Toxicity to aquatic plants
EC50 (Raphidocelis subcapitata (freshwater green alga)) > 1 mg/l
Growth rate; Exposure time: 72 h
The value mentioned relates to the active ingredient.
No acute toxicity was observed at its limit of water solubility.

Toxicity to other organisms
LD50 (Colinus virginianus (Bobwhite quail)) > 2,000 mg/kg
The value mentioned relates to the active ingredient pencycuron.

12.2 Persistence and degradability

Biodegradability
Pencycuron: Not rapidly biodegradable

Koc
Pencycuron: Koc: 5667

12.3 Bioaccumulative potential

Bioaccumulation
Pencycuron: Bioconcentration factor (BCF) 226
Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil
Pencycuron: Immobile in soil

12.5 Other adverse effects

Additional ecological information
No other effects to be mentioned.

SECTION 13. DISPOSAL CONSIDERATIONS

Plastic and foil bags:
Single rinse before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site.
Puncture and bury empty bags 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 bags and product should not be burnt.
SECTION 14. TRANSPORT INFORMATION

ADG

<table>
<thead>
<tr>
<th>UN number</th>
<th>Transport hazard class(es)</th>
<th>Subsidiary Risk</th>
<th>Packaging group</th>
<th>Description of the goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>3077</td>
<td>9</td>
<td>None</td>
<td>III</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PENCYCURON MIXTURE)</td>
</tr>
<tr>
<td>Hazchem Code</td>
<td></td>
<td></td>
<td></td>
<td>2Z</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>UN number</th>
<th>Transport hazard class(es)</th>
<th>Subsidiary Risk</th>
<th>Packaging group</th>
<th>Marine pollutant</th>
<th>Description of the goods</th>
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<tbody>
<tr>
<td>3077</td>
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<td>None</td>
<td>III</td>
<td>YES</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PENCYCURON MIXTURE)</td>
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</tbody>
</table>

IATA

<table>
<thead>
<tr>
<th>UN number</th>
<th>Transport hazard class(es)</th>
<th>Subsidiary Risk</th>
<th>Packaging group</th>
<th>Environm. Hazardous Mark</th>
<th>Description of the goods</th>
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</thead>
<tbody>
<tr>
<td>3077</td>
<td>9</td>
<td>None</td>
<td>III</td>
<td>YES</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PENCYCURON MIXTURE)</td>
</tr>
</tbody>
</table>

SECTION 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994
Australian Pesticides and Veterinary Medicines Authority approval number: 55038

SUSMP classification (Poison Schedule)

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

SECTION 16. OTHER INFORMATION

Trademark information
Monceren® is a Registered Trademark of the Bayer Group.

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 %
LDx Lethal dose to x %
LOEC/LOEL Lowest observed effect concentration/level
MARPOL MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S. Not otherwise specified
NOEC/NOEL No observed effect concentration/level
OECD Organization for Economic Co-operation and Development
OES BCS OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"
PEAK PEAK: Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.
RID Regulations concerning the International Carriage of Dangerous Goods by Rail
SK-SEN Skin sensitiser
SKIN DES SKIN_DES: Skin notation: Absorption through the skin may be a significant source of exposure.
STEL STEL: Exposure standard - short term exposure limit (STEL): A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.
TWA TWA: Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.
UN United Nations
WHO World health organisation

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.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.