

# MATERIAL SAFETY DATA SHEET



Emergency Phone: 1800-033-882 (24 hrs)  
Dow AgroSciences Australia Ltd.  
Frenchs Forest NSW 2086

## KERB\* 500 SC SELECTIVE HERBICIDE

Effective Date: 26 September 2006  
Product Code: 91

### 1. PRODUCT AND COMPANY IDENTIFICATION:

**PRODUCT:** Kerb\* 500 SC Selective Herbicide

**PURPOSE:** Agricultural herbicide.

#### COMPANY IDENTIFICATION:

Dow AgroSciences Australia Ltd.  
ABN 24 003 771 659  
Level 5, 20 Rodborough Road,  
Frenchs Forest NSW 2086

Customer Service Toll Free Number:  
1800 700 096  
(Mon-Fri, 8am–5pm EST)  
Emergency Telephone Number:  
1800 033 882  
(24 hours) (EMERGENCIES ONLY)

Transport Emergency Only Dial 000

### 2. HAZARDOUS IDENTIFICATIONS:

#### EMERGENCY OVERVIEW

**Classified as hazardous according to the criteria of  
NOHSC  
Not Classified as Dangerous Goods for Land  
Transport**

#### Potential Health Effects:

#### RISK PHRASES:

R36/38 Irritating to eyes and skin  
R40: Possible risk of irreversible effects  
R50/53: Very toxic to aquatic organisms, may cause  
long-term adverse effects in the aquatic  
environment.

#### SAFETY PHRASES:

S2 Keep out of the reach of children.  
S36/37 Wear suitable protective clothing and gloves.  
S60: This material and its container must be  
disposed of as hazardous waste.

S61: Avoid release to the environment. Refer to  
special instructions below in sections 6, 7 and  
13)

### 3. COMPOSITION/INFORMATION ON INGREDIENTS:

Ingredient	CAS #	Content
Propyzamide	23950-58-5	42.8%
Balance ingredients not contributing to hazard		57.2%

### 4. FIRST AID:

**Consult the Poisons Information Centre (Australia  
131126) or a doctor in every case of suspected  
chemical poisoning. Never give fluids or induce  
vomiting if a patient is unconscious or convulsing  
regardless of cause of injury. If breathing difficulties  
occur seek medical attention immediately.**

**EYE:** Flush eyes thoroughly with water for several minutes.  
Remove contact lenses after initial 1-2 minutes and  
continue flushing for several additional minutes. If effects  
occur, consult a physician, preferably an ophthalmologist.

**SKIN:** Wash off in flowing water or shower, use soap if  
available. Consult a physician if irritation persists.

**INGESTION:** Do not induce vomiting. Call a physician.  
The decision of whether to induce vomiting or not should  
be made by a physician.

**INHALATION:** Remove to fresh air. Consult a physician.

**NOTE TO PHYSICIAN:** Supportive care. Treatment based  
on judgement of physician in response to symptoms of  
patient.

### 5. FIRE FIGHTING MEASURES:

**FLASH POINT:** > 100°C

**COMBUSTIBLE:** C1

#### FLAMMABLE LIMITS

LFL: Not flammable under normal conditions of use.

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UFL: Not flammable under normal conditions of use.

**EXTINGUISHING MEDIA:** Water fog or fine spray. Carbon dioxide. Dry chemical powder. Foam.

**FIRE AND EXPLOSION HAZARDS:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/ or irritating. Combustion products include: Carbon oxides. Hydrogen chloride. Nitrogen oxides.

**FIRE-FIGHTING EQUIPMENT:** Wear protective clothing and use self-contained breathing apparatus.

**HAZCHEM:** 2X

### 6. ACCIDENTAL RELEASE MEASURES:

**ACTION TO TAKE FOR SPILLS/LEAKS:** DO NOT touch or walk through spilled material. Wear a face shield or goggles, overalls buttoned to neck and wrist, chemical resistant gloves and boots. Stop leak when safe to do so. Dike area and prevent entry into waterways, and drains.

**Small spills/leaks:** Absorb with material such as sand, soil or sawdust. Collect spilled product and place in sealable container for disposal. Spill residues may be cleaned using water and detergent. Contain and absorb wash water for disposal. Absorb and collect washings and place in the same sealable container for disposal. **Large spills/leaks** Dike the area of and report them to Dow AgroSciences at 1800-033-882. Do not use water to clean up.

### 7. HANDLING AND STORAGE:

#### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

**HANDLING:** Wear protective equipment as specified in this MSDS or the label.

**STORAGE:** Store in tightly closed original container in a cool, dry well-ventilated area out of direct sunlight when not in use. Do not store with food, feedstuffs, fertilizers and seeds. See product label for further handling/storage precautions relative to the end use of this product. Reduce

stacking height where local conditions can affect packaging strength.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions

**EXPOSURE GUIDELINES:** For active constituent, propyzamide: Dow AgroSciences recommendation is 0.1 mg/m<sup>3</sup>.

**ENGINEERING CONTROLS:** Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

#### RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

**EYE/FACE PROTECTION:** Use safety glasses. Where contact with the liquid is likely, chemical goggles are recommended.

**SKIN PROTECTION:** For brief contact, no precautions other than clean body-covering clothing and chemical resistant gloves should be needed. When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.

For emergency conditions: Use protective clothing impervious to this material. Selection of specific items will depend on operation.

**RESPIRATORY PROTECTION:** For most conditions, no respiratory protection should be needed. However, when airborne exposure guidelines and/or comfort levels may be exceeded use an approved air-purifying respirator (fitted with a Type A; organic vapour cartridge).

For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

**APPLICATORS AND ALL OTHER HANDLERS:** Refer to the product label for personal protective clothing and equipment.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES:

**APPEARANCE:** Tan liquid  
**ODOUR:** Mild  
**BOILING POINT:** > 100°C  
**VAPOUR PRESSURE:** 17 mmHg @ 20°C (propyzamide).  
**SOLUBILITY IN WATER:** Dispersible  
**SPECIFIC GRAVITY:** 1.14 – 1.20 g/m<sup>3</sup>  
**pH:** 8.3 - 10

### 10. STABILITY AND REACTIVITY:

**STABILITY:** Stable under normal conditions.  
**INCOMPATIBILITY:** (specific materials to avoid) None known.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None under normal conditions of storage and use. Thermal decomposition products include hydrogen chloride and oxides of carbon and nitrogen.

**HAZARDOUS POLYMERIZATION:** Not known to occur.

### 11. TOXICOLOGICAL INFORMATION:

**POTENTIAL HEALTH EFFECTS:** This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

**EYE:** May cause eye irritation.

**SKIN:** The dermal LD<sub>50</sub> for rats is >2000mg/kg. Prolonged skin contact is unlikely to result in absorption of harmful amounts. May cause skin irritation.

**INGESTION:** Low toxicity if swallowed. The oral LD<sub>50</sub> for rats is > 5000 mg/kg.

**INHALATION:** Low toxicity if swallowed. The oral LD<sub>50</sub> for rats is > 5000 mg/kg.

**SYSTEMIC (OTHER TARGET ORGAN) EFFECTS:** For propyzamide, effects have been reported in animals on the following organs: liver, kidney, pituitary, adrenal gland, thyroid, ovaries, and pancreas.

**CANCER INFORMATION:** Propyzamide, has caused cancer in laboratory animals.

**TERATOLOGY (BIRTH DEFECTS):** Propyzamide, did not cause birth defects in laboratory animals and has been toxic to the fetus in laboratory animals only at doses toxic to the mother.

**REPRODUCTIVE EFFECTS:** Propyzamide, has had effects on reproduction in laboratory animal studies only at doses that produced significant toxicity to the parent animals.

**MUTAGENICITY:** Propyzamide, is not known to be mutagenic.

### 12. ECOLOGICAL INFORMATION:

**ENVIRONMENTAL FATE:** Propyzamide readily degrades in soil and water and is extensively metabolised by plants and animals.

**DEGRADATION & PERSISTENCE:** The half-life of propyzamide is about 30 days in both soil and water, producing more polar breakdown products until final formation of carbon dioxide. Propyzamide does not leach in soils except those with high clay content where the material is also actively degraded.

**ECOTOXICOLOGY:** Propyzamide, is considered non-toxic to bees and birds and of low toxicity to fish (rainbow trout are the most sensitive species tested; 96-hr LC<sub>50</sub> is 4.7 mg/L) and aquatic invertebrates such as *Daphnia magna* (48 hr LC<sub>50</sub> is >5.6 mg/L). Propyzamide is very toxic to algae and terrestrial plants.

### 13. DISPOSAL CONSIDERATIONS:

**DISPOSAL METHOD:** If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulations. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to

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determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws and regulations.

### 14. TRANSPORT INFORMATION:

**ROAD AND RAIL TRANSPORT:** not classified as dangerous goods for transport by road or rail.

**MARINE and AIR:** Classified as Dangerous Goods for transport by sea and air according to the criteria of the UN Model Regulations for Transport of Dangerous goods 13<sup>th</sup> Edition.

**UN No:** 3082

**Class:** 9

**Packing group:** III

**SHIPPING NAME:** ENVIRONMENTALLY  
HAZARDOUS SUBSTANCE, LIQUID, N.O.S  
(PROPYZAMIDE)

### 15. REGULATORY INFORMATION:

**APVMA APPROVAL NUMBER:** 54521

**POISON SCHEDULE:** 6

### 16. OTHER INFORMATION:

#### Glossary

**ACGIH:** American Conference of Governmental Industrial Hygienists.

**AIHA WEEL:** American Industrial Hygiene Association's Workplace Environmental Exposure Level.

**BCF: Bioconcentration Factor** - a measure for the characterization of the accumulation of a chemical in an organism. It is defined as the concentration of a chemical in an organism (plants, microorganisms, animals) divided by the concentration in a reference compartment (e.g. food, surrounding water).

**Dow AgroSciences Industrial Hygiene Guideline:** An internal company standard based on an 8 hour TWA.

**EC<sub>50</sub>:** median effective concentration. Statistically derived concentration of a substance in an environmental medium expected to produce a certain effect in 50% of test organisms in a given population under a defined set of conditions.

**Explosive Limits** - The range of concentrations (% by volume in air) of a flammable gas or vapour that can result in an explosion for ignition in a confined space.

**K<sub>oc</sub>** - the organic carbon partition coefficient (mL soil water /g organic carbon).

**LC<sub>50</sub>** - Lethal Concentration 50%. A concentration of chemical in air or water that will kill 50% of the test organisms.

**LD<sub>50</sub>** - Lethal Dose-50%. The dose of a chemical that will kill 50% of the test animals receiving it.

**NOHSC:** National Occupational Health and Safety Commission of Australia now the Office of the Australian Safety and Compensation Council.

**OSHA:** American Occupational Safety and Health Administration.

**PEL:** Permissible Exposure Level, a maximum allowable exposure level by law.

**pH** - Measure of how acidic or alkaline a material is using a 1 - 14 scale. pH 1 is strongly acidic and pH 14 strongly alkaline.

**Polymerisation** - a chemical reaction in which small molecules (monomers) combine to form much larger molecules (polymers). A hazardous polymerisation reaction is one that occurs at a fast rate and releases large amounts of energy.

**P<sub>ow</sub>** - The octanol-water partition coefficient is the ratio of the concentration of a chemical in octanol and in water at equilibrium and at a specified temperature. Octanol is an organic solvent that is used as a surrogate for natural organic matter. This parameter is used in many environmental studies to help determine the fate of chemicals in the environment.

**STEL:** Short-Term Exposure Limit. A term used to indicate the maximum average concentration allowed for a continuous 15 minute exposure period.

**TLV:** Threshold Limit Value, an exposure limit set by a competent authority

**TWA** - Time Weighted Average. The average concentration of a chemical in air over the total exposure time - usually an 8 hour work day.

#### References

AS/NZS 1715-1994 Selection Use and Maintenance of Respiratory Protective Devices.

ASNZS 1716 - 1994 Respiratory protective devices. Australian Dangerous Goods Code

NOHSC Hazardous Substances Information System.

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**FOR FURTHER PRODUCT INFORMATION CALL DOW  
AGROSCIENCES CUSTOMER SERVICE  
REPRESENTATIVES TOLL FREE 1800 700 096 DURING  
BUSINESS HOURS.**

This MSDS has been compiled using publicly available information, information provided by suppliers of ingredients used in the product and internal studies on the product and/or its ingredients.

THIS MSDS 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 BASED ON PUBLICLY AVAILABLE AND INTERNALLY AVAILABLE INFORMATION. EACH USER SHOULD READ THIS MSDS 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 FUTURE INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY. THE 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.

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