

# SAFETY DATA SHEET



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

## RIPPER\* 480 Herbicide

Effective Date: 15 March 2007  
Product Code:106816

### 1. PRODUCT AND COMPANY IDENTIFICATION:

**PRODUCT:** RIPPER\* 480 Herbicide

**PURPOSE:** Non-selective 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

**Not Classified as hazardous according to the criteria  
of NOHSC**

**Not Classified as Dangerous Goods for Land  
Transport**

**Potential Health Effects:** Skin and eye irritation.

**RISK PHRASES:**

None applicable.

**SAFETY PHRASES:**

S2: Keep out of the reach of children.

S24/25: Avoid contact with skin and eyes.

S35: This material and its container must be  
disposed of in a safe way.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS:

Glyphosate: N-(phosphono-	CAS # 038641-94-0	53.7%
methyl)glycine, Isopropyl-		
amine Salt		
Balance, Total		46.3%

### 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.**

**EYES:** Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist.

**SKIN:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**INGESTION:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

**INHALATION:** Move person to fresh air. If not breathing, call emergency personnel or an ambulance, and then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice. If breathing is difficult, oxygen should be administered by qualified personnel.

**NOTE TO PHYSICIAN:** Maintain adequate ventilation and oxygenation of the patient. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the SDS, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

### 5. FIRE FIGHTING MEASURES:

**FLASH POINT:** Not applicable (when tested, the water vapors extinguished the flame)

**FLAMMABLE LIMITS**

**LFL:** Not determined

**UFL:** Not determined

**EXTINGUISHING MEDIA:** Foam, CO<sub>2</sub>, or dry chemical

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**FIRE & EXPLOSION HAZARDS:** Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Toxic irritating gases may be formed under fire conditions.

**FIRE-FIGHTING EQUIPMENT:** Use positive-pressure, self-contained breathing apparatus and full protective equipment.

**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 footwear. Stop leak when safe to do so. Dam the 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. Dam the area of **large spills/leaks** and report them to Dow AgroSciences Emergency Services at 1800-033-882.

### 7. HANDLING AND STORAGE:

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

**HANDLING:** Keep out of reach of children. Harmful if swallowed. Causes skin irritation and sensitivity. Avoid contact with skin and clothing. After work, remove protective clothing and equipment, wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Clean up spilled material immediately, and wash clothes, equipment and work area after use.

**STORAGE:** Store in tightly closed original container in a cool, dry well-ventilated area out of direct sunlight when not in use. This product can be stored in an unheated building. 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.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

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

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**EXPOSURE GUIDELINES:** None established.

**ENGINEERING CONTROLS:** Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

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

**RESPIRATORY PROTECTION:** Use an Australian Standards approved air purifying respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an Australian Standards approved positive-pressure self-contained breathing apparatus.

**SKIN PROTECTION:** Use gloves chemical resistant gloves.

**EYE PROTECTION:** Use chemical goggles. Eye wash fountain should be located in immediate work area.

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

### 9. PHYSICAL AND CHEMICAL PROPERTIES:

**BOILING POINT:** Not determined

**VAPOUR PRESSURE:** Not determined, (Glyphosate IPA =  $2.1 \times 10^{-3}$  mPa @ 25 °C )

**VAPOUR DENSITY:** Not determined

**SOLUBILITY IN WATER:** Not determined (Glyphosate IPA = 1050g/L @ 25 °C pH 4.3)

**APPEARANCE:** Clear yellow liquid

**ODOUR:** Amine

**pH:** 4.77 (1% w/v solution)

**RELATIVE DENSITY:** 1.207 g/mL

### 10. STABILITY AND REACTIVITY:

**STABILITY:** (CONDITIONS TO AVOID) Stable under normal storage conditions.

**INCOMPATIBILITY:** (SPECIFIC MATERIALS TO AVOID) None known.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None known.

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**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 moderate eye irritation and/or corneal injury. May cause permanent impairment of vision, even blindness.

**SKIN:** Brief contact may cause slight skin irritation with local redness. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The dermal LD<sub>50</sub> has not been determined. For a similar material, the LD<sub>50</sub> for skin absorption in rats is >5000 mg/kg. Did not cause allergic skin reactions when tested in guinea pigs.

**INGESTION:** Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. High oral doses cause central nervous system effects in animals. Single dose oral LD<sub>50</sub> has not been determined. For a similar material, the oral LD<sub>50</sub> for rats is >5000 mg/kg.

**INHALATION:** Prolonged excessive exposure may cause adverse effects. May cause respiratory irritation and central nervous system depression. For a similar material, the aerosol LC<sub>50</sub> for rats is >5.25 mg/L for 4 hours.

**SYSTEMIC (OTHER TARGET ORGAN) EFFECTS:** For a similar material, in animals, effects have been reported on the following organ: liver.

**CANCER INFORMATION:** A similar material did not cause cancer in laboratory animals.

**TERATOLOGY (BIRTH DEFECTS):** For the active ingredient, available data are inadequate for evaluation of potential to cause birth defects.

**REPRODUCTIVE EFFECTS:** For the active ingredient, available data are inadequate to determine effects on reproduction.

**MUTAGENICITY (EFFECTS ON GENETIC MATERIAL):** For a similar material, in-vitro and animal genetic toxicity studies were negative.

### 12. ECOLOGICAL INFORMATION:

### ENVIRONMENTAL FATE:

Based largely or completely on information for the active ingredient.

Bioconcentration potential is low (BCF is <100 or Low Pow <3).

### DEGRADATION & PERSISTENCE:

Based largely or completely on information for the active ingredient.

Degradation is expected in the soil environment.

### ECOTOXICOLOGY:

Based largely or completely on information for the active ingredient.

Material is slightly toxic to aquatic organisms on an acute basis (LC<sub>50</sub> or EC<sub>50</sub> is between 10 and 100 mg/L in the most sensitive species tested).

### 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 regulatory authorities. 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 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:

#### DANGEROUS GOODS CLASSIFICATION

**ROAD AND RAIL TRANSPORT:** Not classified as dangerous goods for transport by road and rail by the criteria of the Australian Dangerous Goods Code (ADG 6),

**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 and IMDG code.

**UN No:** 3082  
**Class:** 9

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**Packing group:** III  
**SHIPPING NAME:** ENVIRONMENTALLY  
HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(GLYPHOSATE)

### 15. REGULATORY INFORMATION:

**APVMA NUMBER:** 60370  
**POISON SCHEDULE:** 5

### 16. OTHER INFORMATION:

#### Glossary

#### Glossary

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

**ASCC:** Australian Safety and Compensation Council.

**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).

**BOD: Biochemical oxygen demand.** The amount of oxygen required by aerobic microorganisms to decompose the organic matter in a sample of water, such as that polluted by sewage. It is used as a measure of the degree of water pollution. Also called biological oxygen demand.

**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.

**EEL:** Environmental exposure standard set by ERMA

**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).

**K<sub>ow</sub>:** See P<sub>ow</sub>

**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 doses of a chemical that will kill 50% of the test animals receiving it.

**NIOSH:** American national Institute of Occupational Safety and Health, a federal agency which conducts research on

occupational safety and health questions and recommends new standards.

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

**OASCC:** Office of the Australian Safety & Compensation Commission.

**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 workday.

#### References

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

ASNZS 1716 - 1994 Respiratory protective devices.

Australian Dangerous Goods Code

International Maritime Dangerous Goods Code.

International Air Transport Association (IATA) Dangerous Goods Regulation

NOHSC Hazardous Substances Information System.

**FOR FURTHER PRODUCT INFORMATION CALL DOW  
AGROSCIENCES CUSTOMER SERVICE**

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### 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 FURTHER 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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