Material Safety Data Sheet

Date of Issue

Company

Address

Dow AgroSciences Australia Ltd ACN 003 771 659

Level 5, 20 Rodborough Road Frenchs Forest NSW 2086

Customer Service Toll Free Number (Mon-Fri 8am-5pm EST) 1800 700 096 **Emergency Telephone Number (24 hours)**

Access* Herbicide

Hazardous according to the criteria of The National Occupational Health & Safety Commission (NOHSC). Risk phrases; R36: Irritating to eyes, R38: Irritating to skin, R65 – Harmful: May cause lung damage if swallowed.

IDENTIFICATION I.

Product Name:	Access Herbicide.	Dangerous Goods Class:	None allocated.
Shipping Names:	None.	Sub Risk Class:	None allocated.
Product Code:	IWD-4091.	Packaging Group:	None allocated.
UN No:	None allocated.	Poison Schedule:	S6.
Hazchem Code:	None allocated.		

Uses: Selective control of a wide range of woody and noxious weeds in commercial and industrial areas, public lands, fence lines and pastures, by basal bark and cut stump applications as specified on the label.

PHYSICAL APPEARANCE & PROPERTIES

Appearance:	Clear brown liquid.	Specific gravity:	1.07 at 20°C.
Boiling point:	183-210°C (solvent).	Solubility in water:	Insoluble.
Volatile materials:	No specific data. Expected	Corrosiveness:	Not corrosive.
	to be low at 100°C.	Vapour Pressure:	3.75mm Hg at 38° (solvent)
Flashpoint:	3°C (PMCC).	1.0 x 10 ⁻⁵ mm Hg at 3	3°C (triclopyr butoxyethyl ester)
		$1.9 \ge 10^{-7}$ mm Hg at 2	5°C (picloram isooctvl ester)

INGREDIENTS

Chemical Entity	CAS No.	Proportion
Triclopyr butoxyethyl ester (sufficient to give240 g/L of the acid equivalent)	064700-56-7	343 g/L
Picloram isooctyl ester (sufficient to give 120 g/L of the acid equivalent)	026952-20-5	205 g/L
Aromatic solvent Other non hazardous ingredients	064792-94-5	390 g/L
outer non nazardous ingredients		(100 g/L

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November 1999

1800 033 882 (EMERGENCIES ONLY)

Page 1 of Total 5

II. HEALTH HAZARD DATA

Note: The data generated below is for the product Access Herbicide, unless otherwise stated.

A. Health Effects

Acute

- **Swallowed:** The acute oral toxicity is expected to be low and small amounts ingested incidentally due to industrial handling are not likely to be harmful. The oral LD_{50} (rat) for a similar formulation is above 2000 mg/kg. If the concentrate enters the lungs, lung damage may occur due to chemical pneumonia caused by the solvents.
- Eye: Solvent vapour may irritate the eyes. Concentrate in eye may cause moderate eye irritation.
- Skin: The acute dermal toxicity is low and a single prolonged dermal exposure is not likely to result in absorption of harmful amounts. For a similar formulation the acute dermal LD₅₀ (rabbit) is above 2000 mg/kg. Prolonged or repeated contact with the concentrate may cause moderate irritation, drying or flaking of the skin and possible skin sensitisation.
- **Inhaled:** The acute inhalation toxicity is low and absorption of harmful amounts by inhalation is unlikely. Prolonged exposure to the solvent vapour from the concentrate may cause eye and respiratory irritation, headache, dizziness and narcotic effects.

Chronic

Possible chronic health effects from exposure to Access are based on studies on the active ingredients. Rats and mice administered the active ingredients, triclopyr and picloram, in long-term carcinogenicity studies showed no increase in tumours when compared to the untreated groups. Studies in rats and rabbits indicated that triclopyr and picloram do not cause birth defects or interfere with reproduction. Triclopyr and picloram do not cause genetic change and do not accumulate in the body. The ingredients are not listed as carcinogenic in NOHSC's document "Exposure Standards for Atmospheric Contaminants in the Occupational Environment" (May 1995).

B. First Aid

General: Consult The National Poisons Information Centre (Ph: 13 11 26) 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.

Swallowed:	If swallowed, and if more than 15 minutes from a hospital induce vomiting, preferably using Ipecac Syrup APF.
Skin:	If on skin, remove contaminated clothing and wash skin thoroughly with soap and water.
Eyes:	If in eyes, hold eyes open and flood with water for at least 15 minutes and see a doctor.
Inhalation:	If affected, remove from contaminated area to fresh air.

Advice to Doctor: Access herbicide contains petroleum solvents and the benefits of inducing vomiting must be weighed against the possibility of chemical pneumonitis. If lavage is performed, endotracheal or oesophagioscopic control is advisable.

III. PRECAUTIONS FOR USE

Exposure Standards:	A time weighted average (TWA) has been established for picloram, present in significant quantities in this product. This value is 10 mg/m ³ . The corresponding STEL level is "not set". The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The ADI (Acceptable Daily Intake) for triclopyr is set at 0.005 mg/kg/day. The corresponding NOEL (No-observable-effect-level) is set at 0.5 mg/kg/day. Values taken from Australian ADI List, May 1995. The ADI for picloram is set at 0.07 mg/kg/day. The corresponding NOEL is set at 7 mg/kg/day. Values taken from Australian ADI List, May 1995.
Engineering Controls:	In industrial situations, concentration values below the TWA value should be maintained. Values may be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify the process or environment to reduce the problem.
Personal Protection:	Harmful if swallowed. Will irritate the eyes, nose, throat and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. Avoid inhaling vapour or spray mist. When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrists, a washable hat, elbow-length neoprene gloves and a face shield or goggles. If product in eyes, wash it out immediately with water. If product or spray on skin immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. Wash hands after use. After each days use wash gloves, face shield or goggles and contaminated clothing.

IV. SAFE HANDLING INFORMATION

Storage & Transport:

No special storage and transport requirements. This product has no UN classification. This product is an S6 Poison. Observe all relevant regulations regarding sale, transport and storage of this class of product. Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Avoid contact with food, foodstuff empties, feedstuffs, fertilisers, seeds, clothing, drugs or other household goods during transport and storage. Keep from extreme heat and open flames, and make sure that the product does not come into contact with substances listed under "Materials to avoid" below.

Spills

- **Small Spill**: Extinguish all sources of ignition. Wear protective equipment (see Personal Protection). Apply absorbent material such as earth, sand, clay granules or cat litter to the spill. Sweep up material when absorption is completed and contain in a refuse vessel for disposal in the same manner as for containers (see Disposal Section). If necessary wash the spill area with an alkali detergent and water and absorb the wash liquid for disposal as above. Prevent entry of chemical or used/damaged containers into drains, streams or waterways.
- Large Spill: Extinguish all sources of ignition. Wear protective equipment (see Personal Protection). Clear area of all unprotected personnel. Place leaking containers into salvage drums. Apply absorbent material such as earth, sand or cat litter to the spill area. Form a barricade around spill and in front of drains or waterways in spill vicinity, using earth or other available material. Prevent entry of chemical or used/damaged containers into drains, streams or waterways. Contact Emergency Services on 000 immediately and notify Dow AgroSciences Australia Limited on 1800 033 882 (24 hours) or 1800 700 096 (Mon-Fri, 8am to 5pm EST).

Disposal

Contaminated material must be disposed of in accordance with all State and/or Local regulations.

Small quantities Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. and containers: Do not dispose of undiluted chemicals on site. If recycling container, 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.

Large quantities: Contact Dow AgroSciences and seek advice.

Fire & Explosion Hazard

This product is classified as a C1 combustible product. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

Flashpoint:	73°C (PMCC)
Flammability limits:	Upper Value: 6.0% : Lower Value: 0.9%
Extinguishing Media:	Carbon dioxide, dry chemical, foam, water fog.
Special Fire Fighting procedures:	If a significant quantity of this product is involved in a fire, call the fire brigade. Immediately evacuate the area of unnecessary personnel. When fighting fires involving significant quantities of this product, wear safety boots, non-flammable overalls, gloves, hat and preferably, goggles.
Unusual Fire & Explosion Hazards :	Fire decomposition products from this product may form toxic and corrosive mixtures in confined spaces. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids.
Stability:	This product is unlikely to spontaneously decompose.
Polymerisation:	This product is unlikely to spontaneously polymerise.
Decomposition Products:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Hydrogen chloride gas, chlorides, and in some circumstances, phosgene. Water.
Materials to avoid:	Strong oxidising agents.

V. OTHER INFORMATION

Picloram ester and triclopyr ester rapidly convert to the parent acids picloram and triclopyr once in soil, water, plants and animals. It is the properties of these compounds which are important in assessing any effects from treatment.

Ecotoxicity Data

Picloram has low toxicity to fish, birds, honey bees, livestock and aquatic organisms. Picloram does not bioaccumulate in animal systems.

Triclopyr butoxyethyl ester is toxic to fish, moderately toxic to aquatic organisms and livestock, and slightly toxic to birds. It has low toxicity to honey bees. In soil and water, triclopyr butoxyethyl ester hydrolyses to triclopyr acid which has low toxicity to fish, aquatic organisms, livestock, birds and honey bees. Triclopyr does not bioaccumulate in animal systems.

Environmental Fate

The breakdown of picloram in soil is variable and is influenced by soil moisture, temperature and organic content. Under spill conditions or very high use rates, residues could remain in the soil up to four years, particularly in arid soils. At low application rates, under warm, moist conditions, residues decline sufficiently to allow growth of susceptible plants within twelve months. In soil, picloram is degraded by photodegradation and microbial action. In water, it is degraded by ultra-violet light with a half-life of one to forty days depending on sunlight intensity. Picloram typically remains in the top thirty centimetres of a soil profile depending on soil adsorption properties.

Triclopyr butoxyethyl ester is rapidly hydrolysed to triclopyr acid in soil and water. Triclopyr acid is degraded by microbial action and photodecomposition. Triclopyr acid, in soil, has a half-life of approximately forty days, depending on soil and climatic conditions. In water, triclopyr acid will decompose rapidly with a half-life of one to two days. Minimal leaching of triclopyr acid may occur in light soils under high rainfall conditions. Contamination of ground water by picloram and triclopyr is highly unlikely. If used according to the label, Access Herbicide will not be harmful to the environment.

VI. CONTACT POINT

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

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. 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.