MATERIAL SAFETY DATA SHEET

Section 1 – IDENTIFICATION

Product name	**SIERRARON G PRE-EMERGENT HERBICIDE**	
Other names	Dichlobenil	
Recommended use/s	**For pre-emergent weed control**	
Supplier name	Scotts Australia Pty. Ltd.	
Address	Australia: 11 Columbia Way Baulkham Hills, NSW, 2153	New Zealand: 180c Great South Rd Takanini Auckland
Telephone number	02 8853 7300	09 299 6558
Fax	02 8853 7310	09 296 0186
Emergency telephone number	Australia: 1800 033 111	New Zealand: 0800 734 607

Section 2 - HAZARDS IDENTIFICATION

General hazard statement	NON-HAZARDOUS SUBSTANCE, NON-DANGEROUS GOOD
Hazard classification	Classified according to the National Occupational Health & Safety Commission and the Australian Dangerous Goods Code.
Risk phrase(s)	None allocated
Safety phrase(s)	None allocated

Section 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Chemical Name	CAS Number	Proportion % w/w
Active ingredients	Dichlobenil	1194-65-9	<10% (67.5g/kg)

Note: Australian and US patents apply.

Section 4 - FIRST AID MEASURES

Standard SUSDP First Aid Statement	If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 13 11 26 (Australia).
Description of necessary measures according to routes of exposure	
Eye contact	Hold eyes open and flush with water for at least 15 minutes. Seek medical advice.
Skin contact	Wash thoroughly with soap and water. Remove contaminated clothing and launder before re-use. If irritation occurs seek medical advice.
Inhalation	Remove patient to fresh air- avoid becoming a casualty. If effects persist, seek medical advice.
Ingestion	Rinse mouth with water. Give patient plenty of water to drink. Seek immediate medical advice.

Section 5 - FIREFIGHTING MEASURES

Suitable extinguishing media	Water jets, water fog (or if unavailable, fine water spray), foam, dry agent (carbon dioxide, dry chemical powder). Contain runoff.
Hazards from combustion products	Combustible Solid: Protect against inhalation of combustion products by wearing self-contained breathing apparatus.
Special protective precautions	Wear self-contained breathing apparatus.
Hazchem Code	None allocated
Special remarks on fire hazards	Keep away from sources of ignition and heat.

Section 6 - ACCIDENTAL RELEASE MEASURES

Emergency procedures	If there is contamination of crops or waterways, advise emergency services or State Department of Agriculture.
Methods and materials for containment and clean up	Wear protective equipment as outlined above, to prevent skin and eye contamination as well as inhalation of dust. Eliminate all ignition sources within at least 15 m. Do not touch or walk through spilled material. Preferably, vacuum up to avoid creating dust. Do not contaminate watercourses or drains with products or containers. Transfer into secure, sealed and properly labeled containers for disposal. Do not reuse container for any purpose.

Section 7 - HANDLING AND STORAGE

Precautions for safe handling	Wear protective equipment as outlined above, to prevent skin and eye contamination as well as inhalation of dust.
Conditions for safe storage, including any incompatibilities	Store in original container, away from children, animals, food and feedstuffs. Storage must be secure, and locks and/or seals in order, so contents cannot be tampered with. Check regularly for leaks. Keep cool and dry and out of direct sunlight or other sources of heat and ignition.

Section 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

National exposure standards	None allocated for this material by the National Occupational Health and Safety Commission (Worksafe Australia).
Biological limit values	None allocated
Engineering controls	Provide sufficient ventilation to minimize dust exposure. Protect closed handling systems against possible dust explosions. Avoid dust accumulations in building or equipment surfaces. Keep containers closed when not in use.
Personal protective equipment	Wear suitable protective clothing and gloves. Avoid personal contact. Do not inhale dust. Do not eat, drink or smoke while using. Wear overalls, safety glasses and impervious gloves. If dust is generated and there is danger of inhaling dust, wear a dust respirator (SCBA). After use and before eating, drinking, smoking or using the toilet, wash hands, arms and face thoroughly with soap and water. Launder clothing before reuse.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance (colour, physical form, shape)	Pale grey granules and powder
Odour	Characteristic odour
pH	Not available
Vapour pressure	0.088Pa @ 20°C for active ingredient
Vapour density	Not available
Boiling point/range	Not available
Freezing/melting point	Not available
Solubility (specify solvent)	Not available
Specific gravity or density	Not available
Flashpoint	>150°C
Flammability	Not available
Upper and lower flammable limits	Not available
Ignition temperature	Not available
Viscosity	Not available
Ionicity (in water)	Not available
Dispersion properties	Not available
Evaporation rate	Not available
Water/Oil Dist. Coeff.	Not available
Corrosivity	Not available

Section 10 - STABILITY AND REACTIVITY

Chemical stability	Not available
Conditions of instability	Not available
Conditions to avoid	Not available
Incompatible materials	Not available
Hazardous decomposition products	Not available
Hazardous reactions	Not available
Hazardous polymerisation	Not available

Section 11 - TOXICOLOGICAL INFORMATION

Health effects from likely routes of exposure:
SWALLOWED: May result in nausea and vomiting.
Acute oral LD50 - > 2.0g/kg (rat) (Dichlobenil)
- 1.17g/kg (rat/mice) (Sierraron)
EYE: Contact with eyes may cause irritation.
SKIN: Contact with skin may result in irritation.
Dichlobenil - Acute dermal LD50 - > 2.0g/kg (rabbit)
INHALED: Slightly toxic by inhalation.
Acute inhalation LC50 - > 0.250mg/L (rat) (Dichlobenil)
- > 3.3mg/L (rat) (Sierraron)

Chronic health effects: In a 2 year feeding study with dichlobenil in male and female dogs (at doses up to 8.75 mg/kg/day), increased liver and thyroid weights and other physiological changes were reported at the highest dose tested.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Dichlobenil is moderately toxic to fish and to aquatic invertebrate. For the active ingredient dichlobenil: 96 hr LC50 (Bluegill Sunfish) – 7.8 mg/L 96 hr LC50 (Rainbow Trout) - 8.3 mg/L 48 hr LC50 (Daphnia magna) – 6.2 mg/L
Persistence and degradability	Not available
Products of biodegradation	Not available
Mobility	Not available
Environmental fate	Not available
Bioaccumulative potential	Not available

Section 13 - DISPOSAL CONSIDERATIONS

Disposal methods and containers	For disposal after intended use: Do not dispose of undiluted chemicals on-site. Puncture or shred and bury 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. For disposal after spill or accident: Dispose of sealed containers at an approved local waste disposal site.
Special precautions for landfill or incineration	Empty containers and product should not be burnt.

Section 14 - TRANSPORT INFORMATION

Dangerous Goods Classification	None allocated
UN Number	None allocated
UN Proper Shipping Name	None allocated
Class and subsidiary risk	None allocated
Packing Group	None allocated
Special precautions for user	None allocated
Hazchem Code	None allocated
IMDG Classification	None allocated
IATA Classification	None allocated
ADR/RID Classification	None allocated

Section 15 - REGULATORY INFORMATION

The regulatory status of a material (including its ingredients) under relevant Australian health, safety and environmental legislation

Poisons Scheduling (Australia SUSDP) S6

Additional national and/or international regulatory information

APVMA Registration No. 58048

Section 16 - OTHER INFORMATION

Date of preparation or last revision of this MSDS	April 2006
Key/legend to abbreviations and acronyms used in the MSDS	IATA – International Air Transport Association WHMIS – Workplace Hazardous Materials Information System HMIS – Hazardous Materials Information System ACGIH – American Conference of Government Industrial Hygienists IARC – Inter Agency Regulatory Council NOHSC – National Occupational Health and Safety Commission (Australia) SUSDP – Standard for the Uniform Scheduling of Drugs and Poisons (Australia) STEL – Short Term Exposure Limit OSHA – Occupational Safety and Health Administration NTP – National Toxicology Program PEL – Permissible Exposure Limit TWA – Time Weighted Averages TLV - Threshold Limit Value NIOSH – National Institute of Occupational Health and Safety
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