

SAFETY DATA SHEET

SECTION 1

IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Sword 750 WG Herbicide**

Other Names: Chlorsulfuron. A sulfonylurea herbicide, Group B Herbicide.
Use: A selective herbicide for use in cereal crops.
Company: Apparent Pty Ltd
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SECTION 2

HAZARDS IDENTIFICATION

Not classified as hazardous according to criteria of Safe Work Australia.*
Not classified as a Dangerous Good according to the ADG Code.

* Under Safe Work Australia this product is not classified as a hazardous substance.
Under the Globally Harmonised System (GHS) this product is a hazardous substance with the following environmental classification:

GHS Classification:

Hazardous to the Aquatic Environment – Acute Hazard: Category 1.
Hazardous to the Aquatic Environment – Long term hazard: Category 1.

Signal Word: WARNING.

Hazard Statements:

H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

P391 Collect spillage.

Disposal:

P501 Dispose of contents/container in accordance with national regulations.

Pictogram:



SECTION 3**COMPOSITION/INFORMATION ON INGREDIENTS****Ingredients:**

CHEMICAL	CAS NUMBER	PROPORTION
Chlorsulfuron	64902-72-3	750 g/kg
Other ingredients (including water) determined not to be hazardous		Balance

SECTION 4**FIRST AID MEASURES****FIRST AID**

Ingestion: If swallowed do not induce vomiting. Wash mouth with water and give water to drink. If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 131 126.

Eye contact: Gently brush granules away and hold eyes open and flood with clean water. Ensure irrigation under eyelids by occasionally lifting them. Do not try to remove contact lenses unless trained. If irritation persists, seek medical advice

Skin contact: Gently brush granules away. Remove contaminated clothing. Wash skin with soap and water. If skin irritated persists, re-wash area and seek medical advice.

Inhalation: Remove to fresh air and observe until recovered. If effects persist, seek medical advice.

SECTION 5**FIRE FIGHTING MEASURES**

Specific Hazard: Generally considered a low risk. Not flammable. This product, if scattered, may form flammable or explosive dust clouds in air.

Extinguishing media: Product is not flammable. Extinguish fire using media suited to burning material. If containers are ruptured contain all runoff. For small fires consider letting fire burn itself out as water may increase the area contaminated.

Hazards from combustion products: There is no risk of an explosion from this product involved in a fire. On heating will emit toxic fumes. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk to of exposure to vapour or smoke.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke or vapours generated.

SECTION 6**ACCIDENTIAL RELEASE MEASURES****Emergency procedures / Material and methods for containment and cleanup procedures:**

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. If there is a significant chance of that dust is likely to build up in the cleanup area, the use of a respirator is recommended.

In the case of spillage, stop leak if safe to do so, and contain spill. Contain spill and sweep up and shovel or collect recoverable material into labelled containers for use, recycling or dispose as waste as indicated in section 13 or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Keep out animals and unprotected persons.

After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Thoroughly launder protective clothing before storage or re-use.

SECTION 7**HANDLING AND STORAGE**

Precautions for Safe Handling: No smoking, eating or drinking should be allowed where material is used or stored. Keep out of reach of children. Avoid contact with eyes and skin. DO NOT inhale spray mist. Wash hands after use.

Conditions for Safe Storage: Not classified as a Dangerous Good. Store in the closed, original container in a well ventilated area away from children, animals, food, feedstuffs, seed and fertilisers. Do not store for prolonged periods in direct sunlight.

SECTION 8**EXPOSURE CONTROLS / PERSONAL PROTECTION****Exposure Guidelines:**

No exposure limits have been assigned by Safe Work Australia to the ingredients in this product.

Biological Limit Values:

No biological limit allocated.

Engineering controls:

No special ventilation requirements are normally necessary for this product. Keep containers closed when not in use.

Personal Protective equipment (PPE):

General: Avoid contact with eyes and skin. DO NOT inhale spray mist. Wash hands after use. Although no specific personal protective equipment is required it is good occupational practice to wear suitable personal protective equipment such as overalls and chemical resistant gloves. Avoid contact with eyes and skin.

Personal Hygiene: Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking. Shower at the end of the workday.

SECTION 9**PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	White to off white free flowing granules.
Odour:	None.
Freezing point:	No data (product is a solid at room temperature).
Solubility in Water:	Disperses in water.
pH:	No data available.
Flammability:	Not flammable.
Corrosive hazard:	Not corrosive.
Poisons Schedule:	S5.
Formulation type:	Water Dispersible Granule (WG).

SECTION 10**STABILITY AND REACTIVITY**

Chemical Stability: Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

Conditions to avoid: Do not store for prolonged periods in direct sunlight.

Incompatible materials: Strong oxidising agents.

Hazardous decomposition products: When involved in a fire will emit toxic and noxious fumes.

Hazardous reactions: No particular reactions to avoid.

SECTION 11**TOXICOLOGICAL INFORMATION**

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components. As with all products for which limited data is available, caution must be exercised through the use of protective equipment and handling procedures to minimise exposure.

Potential Health Effects:**ACUTE EFFECTS**

Swallowed:	Swallowing may result in nausea, vomiting and headache. Acute oral LD ₅₀ > 2000 mg/kg. Low toxicity.
Eye:	This product may cause physical eye irritation. Symptoms may include stinging and reddening of eyes and watering. Chlorsulfuron is not an eye irritant.
Skin:	Repeated or prolonged exposure may be irritating to the skin.
Inhaled:	LC ₅₀ > 5.5 mg/L/4hr. Low toxicity. Available data indicates that this product is not harmful. However, this product may be irritating, but is unlikely to cause anything more than mild transient discomfort.

SECTION 11 TOXICOLOGICAL INFORMATION (Continued)

LONG TERM EXPOSURE:

Chronic toxicity: The following information is from repeated or prolonged exposure that occurred at higher levels than what would be expected in normal use:

Inhalation effects in the rat – reduced body weight gain, effects to the kidney and spleen, bloody urine and bone marrow changes.

Oral effects in the rat – reduced body weight gain and altered blood chemistry. In the dog there was a decrease in the number of red blood cells.

Reproductive effects: Current evidence indicates that chlorsulfuron does not adversely affect reproduction.

Teratogenic effects: Available evidence suggests that chlorsulfuron is not teratogenic. Animal tests showed effects on embryo-foetal development at levels equal or above those causing maternal toxicity.

Mutagenic effects: There is no evidence that chlorsulfuron is mutagenic.

Carcinogenic effects: There is no evidence that chlorsulfuron is carcinogenic. At high dose levels there was an increase incidence of tumour in one species but not another species.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: Generally, chlorsulfuron is recognised as having low toxicity to wildlife and fish: Oral LD₅₀ > 5000 mg/kg for quail and duck, oral dietary LC₅₀ of > 5000 ppm for quail and duck, LC₅₀ (96 hr) > 250 ppm for trout and bluegill. Low to moderate toxicity to rainbow trout LC₅₀ (96 hr) > 122 mg/L and *Daphnia magna* (water flea) EC₅₀ (48 hr) > 112 mg/L. Toxic to algae EC₅₀ (72 hr) green algae 0.068 mg/L. No other data available. However, considered to be very toxic to aquatic organisms.

Environmental Fate: Adsorption of chlorsulfuron to clay is low while organic matter has some affinity. K value of 0.69 on a Flanagan silt loam. Rate of leaching is correlated with net movement of soil moisture with less leaching if pH is less than 6.0. Initial deactivation of the molecule is through hydrolysis followed by complete metabolism to low molecular weight compounds through normal soil microbial processes. In the field photodecomposition and volatilization play minor roles in its disappearance. Hydrolysis into non-herbicidal compounds is the major form of degradation and its rate is influenced by soil temperature, pH and levels of oxygen and moisture. Under growing season conditions the half-life is 4-6 weeks. Soil temperature influences length of half-life with shorter persistence at higher temperature. Low pH accelerates hydrolysis while soil texture does not appear to be a major factor in rate of degradation. Chlorsulfuron is moderately persistent and highly mobile and has potential to enter surface waters from runoff. The very low application rate and microbial breakdown suggest that chlorsulfuron has little potential to enter ground water.

SECTION 13 DISPOSAL CONSIDERATIONS

Spills and Disposal: Persons involved in cleanup require adequate skin protection - see section 8. In case of spillage, contain spilled material with absorbent material such as clay, sand or cat litter and dispose of waste as indicated below or in accordance to the Australian Standard 2507- Storage and Handling of Pesticides. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with detergent and water and add the solution to the drums of wastes already collected and label contents. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities.

Disposal of empty containers: Rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. Dispose of at a local authority landfill. If no landfill is available, bury the containers below 500mm 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.

SECTION 14 TRANSPORT INFORMATION

Road & Rail Transport: This product is not classified as a Dangerous Goods in packs less than 3,000 kg or litres under the Australian Code for the Transport of Dangerous Goods by Road and Rail. For bulk shipments this product is a class 9, UN 3082. (See special provision AU01).

SECTION 14 TRANSPORT INFORMATION (Continued)

Marine and Air Transport: Apparent Sword 750 WG Herbicide is classified as a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air transport Association (IATA). If transporting by sea or air the following Dangerous Goods Classification applies:- UN 3077, Class 9 (Miscellaneous Dangerous Goods), Packing Group III, Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Contains Chlorosulfuron). Hazchem code 2Z. Hazard Identification Number (HIN) 90. Australian Standards Initial Emergency Response Guide No. 47.

SECTION 15 REGULATORY INFORMATION

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a schedule 5 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 65285.

This product is not classified as a Hazardous Substance under the criteria of Safe Work Australia.

This product is not classified as a Dangerous Good according to the ADG Code for packs less than 3000 litres (SP AU01) (7th Ed).

This product is classified as a Dangerous Good according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).

Requirements concerning special training:

Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

SECTION 16 OTHER INFORMATION

Issue Date: 29 July 2015. Valid for 5 years till 29 July 2020 (First issue).

Key to abbreviations and acronyms used in this SDS:

ADG Code Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).

Carcinogen An agent which is responsible for the formation of a cancer.

Genotoxic Capable of causing damage to genetic material, such as DNA.

NOHSC National Occupational Health and Safety Commission.

OCS Office of Chemical Safety.

PPE Personal protective equipment.

Teratogen An agent capable of causing abnormalities in a developing foetus.

TWA The Time Weighted Average airborne concentration over an eight-hour working day, for a five day working week over an entire working life.

Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

References

1. "Search Hazardous Substances". Safe Work Australia website. (2015).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.

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.

End SDS