

SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **AgMerch Atrazine 900 WG Herbicide**

Other Names: Atrazine is a 1,3,5-triazine derivative, triazine herbicide.
Use: A selective agricultural water dispersible granule herbicide.
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SECTION 2 HAZARDS IDENTIFICATION

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

* Not subjected to the ADG code when transported in Australia by Road or Rail in packages 500 kg (L) or less; or in IBC's (refer to SP AU01). However, if transported by Air or Sea, this provision does not apply. Then the product is classed as a Dangerous Good (Class 9 Environmentally Hazardous) by IATA and IMDG respectively. See Section 14 of this SDS for details.

Globally Harmonised System (GHS) classification of the substance/mixture:

Sensitization – Skin: Hazard Category 1.
Specific Target Organ Toxicity (Repeated Exposure): Hazard Category 2.
Hazardous to the Aquatic Environment – Long-Term (Chronic) Hazard: Hazard Category 1.

Signal Word: WARNING.

Hazard statements:

H317 May cause an allergic skin reaction.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:

P261 Avoid breathing dust, mist or spray.
P264 Wash hands, arms, and face thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P314 Get medical advice/attention if you feel unwell.
P321 Specific treatment see Safety Directions on product label.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Disposal:

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

SECTION 2**HAZARDS IDENTIFICATION (Continued)**

Pictograms:

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

CHEMICAL	CAS NUMBER	PROPORTION
Atrazine	1912-24-9	900 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 out with water. If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 131 126.
- Eye contact:** Gently brush granules away and rinse with water until chemical is removed. If irritation occurs and persists, seek medical advice.
- Skin contact:** Gently brush granules away. Wash skin with soap and water. If irritation occurs and persists, seek medical advice. Irritation is not expected.
- Inhalation:** Remove to fresh air and observe until recovered. If effects persist, seek medical advice.
- Advice to Doctor:** Treat symptomatically.

SECTION 5**FIRE FIGHTING MEASURES**

Specific Hazard: Product is combustible. Melting point of Atrazine is 176°C.

Extinguishing media: Extinguish fire using carbon dioxide, foam or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained. Contain all runoff.

Hazards from combustion products: Product will decompose when burnt and will emit toxic fumes. Fire-fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or smoke. There is no risk of explosion.

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**ACCIDENTAL RELEASE MEASURES**

Emergency procedures: In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and PVC gloves. 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. Prevent spillage entering drains or watercourses. Contain and absorb spilled material with absorbent material such as sand, clay, cat litter or material such as vermiculite. Collect recoverable product for use as labelled on the product. Vacuum, shovel or pump contaminated spilled material into an approved container and dispose of waste as per the requirements of Local or State Waste Management Authorities. Keep out animals and unprotected persons. Launder protective clothing before storage or re-use.

Material and methods for containment and cleanup procedures: To clean spill area, tools and equipment, wash with a solution of soap, water and acetic acid/vinegar. Follow this with a neutralisation step of washing the area with a bleach or caustic soda ash solution. Finally, wash with a strong soap and water solution. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected.

SECTION 7**HANDLING AND STORAGE**

Precautions for Safe Handling: Keep out of reach of children. Avoid contact with eyes and skin. DO NOT inhale dust or spray mist. When preparing spraying and using the prepared spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat, and elbow-length PVC gloves. If using a directed sprayer, wear in addition: waterproof trousers and boots. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves and contaminated clothing.

Conditions for Safe Storage: 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. This product is a Schedule 5 Poison (S5) and must be stored, transported and sold in accordance with the relevant Health Department regulations. Not classified as a Dangerous Good.

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

The following exposure limits have been assigned by Safe Work Australia to Atrazine, the major ingredient in this product.

Atmospheric Contaminant	Exposure Standard (TWA)	STEL (mg/m ³)
Atrazine	5 mg/m ³	-

TWA = Time-weight Average STEL = Short term Exposure Limit

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Keep containers closed when not in use. No special engineering controls are required, however make sure that the work environment remains clean, and that dusts and spray mists are minimised.

Personal Protective Equipment (PPE):

General: When preparing spraying and using the prepared spray wear elbow length PVC gloves. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and.

Personal Hygiene: Avoid contact with eyes and skin. DO NOT inhale dust or spray mist. 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:	Beige coloured granule.
Odour:	Mild, sweet odour.
Boiling point:	Atrazine boils at about 205°C.
Melting/Freezing point:	Atrazine melts at 176°C.
Solubility in Water:	Disperses in water.
Vapour Pressure:	3.85 x 10 ⁻² mPa @25°C for Atrazine
pH:	No data available.
Flammability:	Combustible.
Poisons Schedule:	This product is a schedule 5 (S5) Poison.
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: Keep cool and dry until ready to use.

Incompatible materials: Strong oxidizing agent such as chlorates, nitrates, peroxides etc

Hazardous decomposition products: This product will decompose when burnt. Carbon dioxide and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds and oxides, in some circumstances hydrogen cyanide gas.

SECTION 10**STABILITY AND REACTIVITY (Continued)**

Hazardous reactions: Avoid contact of the concentrate with strong alkalis and alkaline materials such as lime. Polymerisation is unlikely.

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: Slight to moderate toxicity. Acute Oral LD₅₀ > 3000 mg/kg (rats).

Eye: The granules can cause physical discomfort if in the eye. May cause irritation, stinging, reddening and watering of the eyes.

Skin: This product can be irritating to the skin. Classified as a potential sensitiser. Acute dermal LD₅₀ > 3,000 mg/kg.

Inhaled: Inhalation of mists or sprays may produce respiratory irritation. Can cause irritation of the mucous membranes. LC₅₀ > 5.8 mg/L/4 hours.

Long Term Exposure:

Exposure to a sensitizer once sensitization has occurred may manifest itself as an asthmatic condition. This reaction may be extremely severe in some individuals.

Chronic toxicity: Some 40% of rats receiving oral doses of 20 mg/kg/day for 6 months died with signs of respiratory distress and paralysis of the limbs. Structural and chemical changes in the brain, heart, liver, lungs, kidney, ovaries, and endocrine organs were observed. Rats fed 5 or 25 mg/kg/day of Atrazine for 6 months exhibited growth retardation. In a 2-year study with dogs, 7.5 mg/kg/day caused decreased food intake and increased heart and liver weights. At 75 mg/kg/day, there were decreases in food intake and body weight gain, increased adrenal weight, lowered blood cell counts, and occasional tremors or stiffness in the rear limbs.

Carcinogenicity: Atrazine technical has been extensively tested on laboratory mammals and in test-tube systems. After long-term administration (close to two years of continuous feeding) a slight increase in the incidence of mammary tumours was reported in one species (rat), one sex (female) and one strain (Sprague-Dawley) in one study at higher doses. A 1992 study using Sprague-Dawley rats showed no significant difference between rats fed normal diet and those fed on a diet containing atrazine with regard to the incidence of tumours. Recent studies with the Fischer rat strain have shown no evidence of tumour producing potential. The relevance of the mammary tumour finding to humans is doubted as epidemiological studies of workers involved in the production of atrazine for up to 30 years have shown no evidence of health problems associated with atrazine exposure. Atrazine has been listed by IARC as a Class 3, not classifiable as to carcinogenicity to humans.

Reproductive, Mutagenicity & Teratogenic effects: Data indicates no adverse effects.

Organ toxicity: Lethal doses of Atrazine in test animals have caused congestion and/or haemorrhaging to the lungs, kidneys, liver, spleen, brain, and heart. Long-term consumption of high levels of Atrazine has caused tremors, changes in organ weights, and damage to the liver and heart.

SECTION 12**ECOLOGICAL INFORMATION**

Environmental Toxicology: Very toxic to aquatic organisms may cause long-term adverse effects to the aquatic environment. *Effects on birds:* Atrazine is practically nontoxic to birds – LD₅₀ > 2000 mg/kg in Mallard ducks. *Effects on aquatic organisms:* Atrazine is slightly toxic to fish and other aquatic life (96 hour LC₅₀ range from 0.5 – 15 mg/L), the LD₅₀ for catfish is 7.6 mg/L and 4.3 mg/L for guppies.

Atrazine has a low level of bioaccumulation in fish. In whitefish, Atrazine accumulates in the brain, gall bladder, liver, and gut. *Effects on other organisms:* Atrazine is not toxic to bees LD₅₀ (contact) of > 1000 µg/bee.

SECTION 12**ECOLOGICAL INFORMATION (Continued)**

Environmental Fate: *Breakdown in soil and groundwater:* Atrazine is highly persistent in soil. Chemical hydrolysis, followed by degradation by soil microorganisms, accounts for most of the breakdown of Atrazine. Hydrolysis is rapid in acidic or basic environments but is slower at neutral pH's. Addition of organic material increases the rate of hydrolysis.

Breakdown in water: Atrazine is moderately soluble in water. Chemical hydrolysis, followed by biodegradation, may be the most important route of disappearance from aquatic environments. Atrazine is not expected to strongly adsorb to sediments.

Breakdown in vegetation: Atrazine is absorbed by plants mainly through the roots, but also through the foliage. Once absorbed, it is translocated upward and accumulates in the growing tips and the new leaves of the plant. In susceptible plant species, Atrazine inhibits photosynthesis. In tolerant plants, it is metabolized.

SECTION 13**DISPOSAL CONSIDERATIONS**

Spills and Disposal: Persons involved in cleanup require adequate skin protection - see Section 8. Keep material out of streams and sewers. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities. In rural areas contact ChemClear <http://www.chemclear.com.au> for help with collection of unwanted rural chemicals.

Disposal of empty containers:

Shake and empty contents into spray tank. Do not dispose of undiluted chemicals on site. Break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

SECTION 14**TRANSPORT INFORMATION**

Road & Rail Transport: This product is exempt from classification as a Dangerous Good in packs less than 500 kg (L) or less; or in IBC's under the Australian Code for the Transport of Dangerous Goods by Road and Rail. For bulk shipments this product is a class 9, UN 3077. (See special provision AU01).

Marine and Air Transport: AgMerch Atrazine 900 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 90% Atrazine). 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 6 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 84777.

This product is 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 in packages 500 kg (L) or less; or in IBC's (refer to SP AU01). However, if transported by Air or Sea, this provision does not apply. 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: 15 September 2021. Valid for 5 years till 15 September 2026. (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.
HCIS	Hazardous Chemical Information System.
Lacrimation	The production, secretion, and shedding of tears.
Lavage	A general term referring to cleaning or rinsing.
Mutagen	An agent capable of producing a mutation.
Pneumonitis	A general term that refers to inflammation of lung tissue.
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: Australian government statutory body established in 2008 to develop national policy relating to Worker Health & Safety and workers' compensation.

References

1. "Hazardous Chemicals Information System". Safe Work Australia HCIS website. (2021).
2. "Classifying Hazardous Substances" Safe Work Australia. August 2018.
3. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). United Nations, 2017 (7th Ed).

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