

MATERIAL SAFETY DATA SHEET



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Emergency Contact:
1800 033 111

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Halox 520 Herbicide**

Full Product Name: Halox 520 Herbicide.
Other Names: Haloxyfop.
Use: Pre-emergence herbicide for control of annual and perennial grass weeds.
Company: eChem (Australia) Pty Ltd
Address: Level 4, Lantos Place 80 Stamford Road, Indooroopilly QLD 4068
ACN/ABN: 089 133 095
Telephone Number: 02 6750 8019 **Fax Number:** 02 6752 3123
Emergency Contact: 1800 033 111

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.**

Risk phrases: R22 Harmful if swallowed.
Safety Phrases: S2 Keep out of reach of children.
S13 Keep away from food, drink and animal feedstuffs.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

CHEMICAL	CAS NUMBER	PROPORTION
Haloxyfop-R-methyl ester	72619-32-0	520 g/L
Other ingredients determined not to be hazardous		to 100%

Trace quantities of impurities are possible.

SECTION 4 FIRST AID MEASURES

FIRST AID

Ingestion: If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 13 11 26. Give water to drink.

Eye contact: If in eyes, immediately flush gently with running water for at least 15 minutes. If irritation occurs and persists, obtain medical attention.

Skin contact: Remove contaminated clothing. Wash skin thoroughly with soap and water. If skin irritation persists, seek medical advice.

SECTION 4 FIRST AID MEASURES (Continued)

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

Advice to Doctor: Treat symptomatically. No specific antidote is available.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: This product is a combustible liquid (C1). Flashpoint 85-95°C.

Extinguishing media: Extinguish fire using foam, carbon dioxide, dry agent. Use water spray if no alternative. Contain all runoff.

Hazards from combustion products: Will produce toxic and noxious vapours (eg. Hydrogen chloride, carbon monoxide and hydrogen fluoride) when burnt. Eruption of containers is likely if confined at high temperatures. Intact containers exposed to excessive heat should be cooled with water to reduce drum pressure.

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. Contain all runoff.

SECTION 6 ACCIDENTIAL RELEASE MEASURES

Emergency procedures / Material and methods for containment and cleanup procedures: Wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles to prevent skin contamination. In the case of spillage, contain and absorb spilled material with absorbent material such as sand, clay or cat litter Vacuum, shovel or pump spilled material into an approved container and dispose of waste as indicated in section 13 or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Keep out animals and unprotected persons. Contain all runoff. Prevent spillage from entering drains or watercourses.

SECTION 7 HANDLING AND STORAGE

Precautions for safe Handling: No smoking, eating or drinking should be allowed where material is used or stored. Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with the eyes and skin. When preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles. After each day's use, wash gloves, face shield or goggles and contaminated clothing. Wash hands after use.

Conditions for safe Storage: This product is classified as a C1 (Combustible Liquid) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to state regulations for storage and transport requirements. This product is a Schedule 6 Poison (S6) and must be stored in accordance with the relevant Health Department regulations. eChem Halox is not classified as Dangerous Goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Store product in the closed, original container in a cool, 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 for this product.

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Use in well ventilated areas. Keep containers closed when not in use. No special engineering controls are required.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION (Continued)**Personal Protective equipment (PPE):**

General: When preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles. After each day's use, wash gloves, face shield or goggles and contaminated clothing. Wash hands after use.

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:	Dark yellow, water thin liquid.
Odour:	Characteristic odour.
Boiling point:	No data available.
Freezing point:	No data available.
Specific Gravity:	1.1 ± 0.1.
Solubility in Water:	Emulsifies in water. Not soluble.
pH:	6 - 7.
Flammability:	Combustible liquid (C1).
Corrosive hazard:	Not corrosive.
Flashpoint (°C):	No specific data, but expected to be in the range of 85-95°C.
Flammability Limits (%):	No data available.
Poisons Schedule:	This product is a schedule 6 (S6) poison.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Product stable for at least 2 years under normal conditions of use.

Conditions to avoid: Avoid heat sources - combustible liquid.

Incompatible materials: Avoid strong oxidising agents, strong acids and strong bases.

Hazardous Decomposition Products: None under normal conditions. In a fire toxic and noxious gases are likely to be released.

Hazardous Polymerization: Material is not known to polymerize.

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. Irritating to the eyes and skin.

Potential Health Effects:**ACUTE EFFECTS**

Swallowed: This product may be harmful if swallowed. The estimated Acute Oral LD₅₀ (rat) = 830 mg/kg.

Eye: This product may be irritating to the eyes.

Skin: This product is non irritating to the skin and is not a sensitiser. The estimated dermal LD₅₀ > 2000 mg/kg.

Inhaled: Inhalation of mists or sprays may produce respiratory irritation.

Long Term Exposure: In animal studies, haloxyfop has shown no evidence of mutagenic effects. *Teratogenic effects:* Oral doses of 7.5 mg/kg/day of haloxyfop-methyl given to rats from days 6 to 15 of pregnancy caused delayed bone formation in the offspring.

Carcinogenic effects: Studies show that 0.1 mg/kg/day of haloxyfop-methyl for two years, the highest dose tested, does not cause cancer in rats. Similarly, 0.6 mg/kg/day for two years, the highest dose tested, is not carcinogenic to mice.

SECTION 11 TOXICOLOGICAL INFORMATION (Continued)

Organ toxicity: Doses of 100 mg/kg/day of haloxyfop-methyl caused kidney damage in adult rats. Doses of 0.6 mg/kg/day for 2 years in mice caused reduced body weight gains and increased liver weights in mice. In dogs, 5 mg/kg/day causes a significant decrease in serum cholesterol, as well as a decrease in thyroid weight. Haloxyfop is eliminated from the body in urine and faeces.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: No information is available for the product. The following information refers to the active ingredient, haloxyfop-methyl. Haloxyfop-methyl is practically non-toxic to birds. The oral LD₅₀ is greater than 2,150 mg/kg for mallard ducks. The dietary LC₅₀ (8 day) is greater than 5,620 mg/kg for bobwhite quail. Haloxyfop-methyl is practically non-toxic to fish. The LC₅₀, the concentration in water at which half of the test animals died, ranges from 96 to greater than 1000 mg/kg. Haloxyfop is not toxic to bees. The contact and oral LD₅₀ (48 hours) is 100 micrograms haloxyfop/bee. DO NOT contaminate streams, rivers or water courses.

Environmental Fate: No information is available for the product. The following information refers to the active ingredient, haloxyfop-methyl. The half-life of haloxyfop in soil is 55-100 days depending on the soil. Leaching is moderate. The half-life of haloxyfop in water is 33 days for haloxyfop at pH 5, 5 days at pH 7, and a few hours at pH 9.

SECTION 13 DISPOSAL CONSIDERATIONS**Spills and Disposal:****1) After intended use:**

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, 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. Empty containers and product should not be burnt. Do not cut or saw empty containers, as there is the possibility that fumes inside the container maybe ignited and cause the container to explode.

2) After spill or accident

Clear area of all unprotected personnel. Wear full protective clothing and equipment including chemical resistant (PVC) gloves. Prevent spill from spreading or entering waterways, sewers or underground drains. Absorb spill with absorbent material such as sand clay or cat litter. Place material into an approved drum. To decontaminate spill area, tools and equipment wash with a suitable solution (eg organic solvent, detergent, bleach or caustic) and add the solution to the drums of waste already collected. Dispose of drummed waste and decontamination solution in accordance with the requirements of Local Authorities or State Waste Management Authorities. Ideally the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®). Do not cut or weld metal containers.

SECTION 14 TRANSPORT INFORMATION

Transport: Halox 520 is not classified as Dangerous Goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail. This product is a Schedule 6 Poison (S6) and must be stored in accordance with the relevant Health Department regulations. This product is classified as a C1 (Combustible Liquid) for the purpose of storage and handling, in accordance with the requirements of AS 1940

SECTION 15 REGULATORY INFORMATION

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a schedule 6 poison (SUSDP No. 21).

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 61953.

SECTION 15 REGULATORY INFORMATION (Continued)

This product is classified as a Hazardous Substance under the criteria of Safe Work Australia. (Xn: Harmful).

Halox 520 is not classified as Dangerous Goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Halox 520 is classified as a C1 (Combustible Liquid) for the purpose of storage and handling, in accordance with the requirements of AS 1940.

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 April 2013. Valid for 5 years. (Update address details).

Key to abbreviations and acronyms used in this MSDS:

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.

Hypotonia: A condition of abnormally low muscle tone.

Mutagenic: Able to produce a mutation (a change in the genetic material of cells).

Neurotoxicity: An adverse change in the structure or function of the nervous system.

Oedema: Accumulation of fluid in tissues.

PPE: Personal protective equipment.

Teratogen: An agent capable of causing abnormalities in a developing foetus, that is causing birth defects.

STEL: Short Term Exposure Limits

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 HSIS website. (2013).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.

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.

End MSDS