

Valiant® 520

Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

Product Name:	Valiant® 520
Product Code:	7936086 (1 Litre) 7936088 (5 Litres)
Recommended Use:	Selective herbicide for the control of grass weeds in certain broadleaf crops, forestry, orchards, nurseries, non-crop areas and white clover.
Restrictions of Use:	Refer to Section 15
Company Identification:	Ravensdown Limited
Address:	292 Main South Road, Hornby, Christchurch, 8042 PO Box 1049, Christchurch 8011
Customer Centre:	0800 100 123
National Poisons Information Centre:	0800 POISON (0800 764 766)
Emergency Phone Number:	0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)
Transport Emergency Phone Number:	111 - tell operator what service is needed: Fire, Ambulance or Police
Date of SDS Preparation	9 May 2024 v2

Section 2: HAZARD IDENTIFICATION

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval No:	HSR100054
Pictograms:	
Signal Word:	DANGER

GHS Classification and Category	Hazard Code	Hazard Statement
Flammable Liquids Cat. 4	H227	Combustible liquid.
Acute oral toxicity Cat. 4	H302	Harmful if swallowed.
Aspiration hazard Cat. 1	H304	May be fatal if swallowed and enters airways.
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Specific target organ toxicity – repeated exposure Cat. 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment acute Cat. 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment chronic Cat. 1	H410	Very toxic to aquatic life with long lasting effects.
Hazardous to terrestrial vertebrates.	H432	Hazardous to terrestrial vertebrates.

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P210	Keep away from heat, sparks, open flames or hot surfaces. No smoking.
P260	Do not breathe fumes, vapours or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P331	Do NOT induce vomiting.
P391	Collect spillage.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use foam, carbon dioxide or dry chemical for extinction.

Storage Code	Storage Statement
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3: COMPOSITION INFORMATION

INGREDIENT	CAS No.	CONTENT
haloxyfop-p present as the methyl ester	72619-32-0	52%
other ingredients		To 100%

Section 4: FIRST AID MEASURES

Routes of Exposure:	
If in eyes:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
If on skin:	Take off contaminated clothing and wash before re-use. Wash affected area thoroughly with soap and water. If skin irritation occurs: Get medical advice/ attention.
If ingested:	Rinse mouth. Never give anything by mouth to an unconscious person. If swallowed DO NOT induce vomiting. For advice, contact the National Poisons Centre on 0800 POISON (0800 764 766). Seek medical assistance immediately.
If inhaled:	Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.
Most important symptoms and effects, both acute and delayed	
Symptoms:	Please refer to Section 11 for full details and symptoms.
Eyes:	Causes serious eye irritation.
Skin:	Not applicable.
Ingested:	Harmful if swallowed. May be fatal if swallowed and enters airways.
Inhaled:	Not applicable.
Chronic:	May cause damage to organs (oral) through prolonged or repeated exposure.
Notes to Doctor:	Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Hazard Type	Combustible Liquid
Hazards from combustion products	If involved in a fire, may evolve toxic fumes.
Suitable Extinguishing media	Water fog, foam, carbon dioxide or dry chemical.
Precautions for firefighters and special protective clothing	Full protective clothing and self-contained breathing apparatus.
HAZCHEM CODE	3Z

Section 6: ACCIDENTIAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear appropriate protective clothing as detailed in Section 8. Exclude non-essential people from the area.

Environmental precautions:

Prevent from entering drains, waterways or sewers. If spill does enter waterways contact local authority.

Methods and material for containment and cleaning up:

Contain spill and absorb with inert material such as soil, sand or absorbent granules and place in a sealable waste container.

Dispose of according to Section 13.

Section 7: HANDLING AND STORAGE

Handling:	<p>Read carefully and follow all instructions.</p> <p>Keep away from heat, sparks, open flames or hot surfaces. No smoking.</p> <p>Avoid contact with skin, eyes and inhalation of spray mist.</p> <p>Do not breathe fumes, vapours or spray.</p> <p>Wash hands thoroughly after handling.</p> <p>Do not eat, drink or smoke when using this product.</p> <p>Avoid release to the environment.</p> <p>Wear protective clothing as detailed in Section 8.</p> <p>Record Keeping: Records of use as described in NZS 8409 Management of Agrichemicals must be kept.</p>
Storage:	<p>Keep out of reach of children.</p> <p>Store away from incompatible materials listed in Section 10.</p> <p>Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertiliser, seed. Keep away from naked flame. Remove any ignition sources from storage zones where more than 100 litres either alone or in aggregate with substances of the same hazard classification are stored as closed containers.</p> <p>Store in accordance with NZS 8409 Management of Agrichemicals. DO NOT store this product with Class 1, 2, 3.2, 4 or 5 substances</p> <p>This product is subject to signage and secondary containment when stored in quantities of 100 litres or more, either alone or in aggregate with substances of the same hazard classification. More than 100litres require emergency response plans. For full details refer to NZS 8409 Management of Agrichemicals and HSNO Regulations (Emergency Management and Identification Regulations).</p>

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA ppm mg/m ³	STEL ppm mg/m ³
-----------	------------------------------	-------------------------------

No ingredients have exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2023 14TH EDITION.

Engineering Controls:	Handle in well ventilated area. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. Avoid inhalation of spray mist.
------------------------------	---

Personal Protection Equipment:



Eyes:	When opening the container, preparing spray and when contact with concentrate or solution is likely, wear safety goggles.
Skin/Hands:	When opening the container, preparing spray and when contact with concentrate or solution is likely, wear chemically resistant gloves, cotton overalls buttoned to the neck and wrist, and boots.
Respiratory:	Wear respiratory protection if handling in an area of poor ventilation.
General:	Do not eat, drink or smoke while using this product. Remove protective clothing and wash hands and face before meals and after work. Wash protective clothing daily after work.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Colour	Clear pale yellow
Odour	Mild aromatic solvent
Odour Threshold	Not available
pH	6 - 8
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	>92 ^o C

Flammability	Combustible
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	1.15
Water Solubility	Emulsifies in water
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available
Other information	(EC) Emulsifiable concentrate

Section 10: STABILITY AND REACTIVITY

Stability of Substance	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.
Possibility of hazardous reactions	Not available
Conditions to Avoid	Avoid sources of ignition.
Incompatible Materials	Avoid contact with strong acids, alkalis and oxidising agents.
Hazardous Decomposition Products	None known.

Section 11: TOXICOLOGICAL INFORMATION

Acute Effects:

Swallowed	Harmful if swallowed. LD ₅₀ (rat) >2000mg/kg
Dermal	Not applicable. LD ₅₀ (rat) >2000mg/kg
Inhalation	Not applicable. LC ₅₀ (rat) (4hr) 4700mg/m ³ Under normal application conditions exposure to the spray mix is very low and unlikely to cause any health effects. When applying this product avoid inhalation of spray mist.
Eye	Causes severe eye irritation.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable. Results of animal studies show the active ingredient did not cause cancer. However there was a slight increase in the number of malignant liver tumors in female mice in long term dietary feeding studies.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	May be fatal if swallowed and enters airways.
STOT/SE	Not applicable.
STOT/RE	May cause damage to organs through prolonged or repeated exposure.

Section 12: ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.

Hazardous to terrestrial vertebrates.

Product:

Persistence and degradability	Not considered as readily biodegradable.
Bioaccumulation	No data available.
Mobility in Soil	No data available.
Other adverse effects	Avoid unintended release into streams and waterways.

Ecotoxicity:

Acute Toxicity (fish)

LC₅₀ (96hr) 6.37mg/l (by calculation)

Section 13: DISPOSAL INFORMATION

Disposal Method:	Triple rinse container and add rinsate to the spray tank. Dispose of product only by using in accordance with label directions, or through Agrecovery Chemical Recovery Service or alternative approved programs.
Container Disposal:	Triple rinsed containers containing the Agrecovery logo on the label and that are free of all residues and have an intact legible label may be taken to an Agrecovery collection site for free recycling. Otherwise crush and bury in an approved landfill. Do not burn. Do not use container for any other purpose.



Precautions or methods to avoid: Do not allow product or empty container to contaminate any waterway.

Section 14: TRANSPORT INFORMATION

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2020



Road, Rail, Sea and Air Transport

UN No	3082
Class - Primary	9
Packing Group	III
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HALOXYFOP-P 52%)
Marine Pollutant	Yes
Special Provisions	If the product's individual container is below 5L it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Section 15: REGULATORY INFORMATION

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval Code: HSR100054

HSW (HS) Regulations 2017	Trigger Quantity
Signage Trigger Quantities (Schedule 3)	100L
Emergency Response Plan (Schedule 5)	100L
Secondary Containment (Schedule 5)	100L
Tracking (Schedule 26)	Not required
Certified Handlers	Not required
Location Certificate	Not required
HSNO Additional Controls (Restrictions of use)	
77A - Permissions - requirements relating to permissions from the Authority under section 95A of the HSNO Act 1996	A person must not apply or otherwise use this substance onto or into water, unless that person first obtains a permission from the Authority under section 95A of the Hazardous Substances and New Organisms Act 1996.
77A - Requirements for protection of aquatic farms	A person who applies the substance onto or into water must ensure that the substance is not applied in a manner that may cause harm to aquatic farms where food is produced.
77A - Requirements for irrigation water	A person who applies the substance onto or into water must ensure that the substance is not applied in a manner that may cause harm to crops using water taken from that water body.
77A - Signage for aquatic herbicides	<p>A person who applies the substance onto or into water must ensure that signage is erected and maintained at all public access points within 100 m of the application area to notify the public that application of a herbicide onto or into water has been undertaken and state the following:</p> <ul style="list-style-type: none">· Do not swim;· Do not gather food from the waterway (including fish); and· Do not take water for consumption. <p>The signs must be erected on the day of, and prior to, the operation and remain in place for five days after application, where application of the substance is to a flowing water body, and for 21 days after application where application of the substance is to a static water body. The signs must be removed after five days or 21 days, respectively. The signs must be capable of being read at a distance of at least five metres during daylight hours.</p>
77A - Notification requirements for aquatic herbicides	A person who applies the substance onto or into water must ensure that any parties who may be potentially directly affected are notified of details of the operation, including treatment dates, the identity of the substance which is being used and relevant restrictions on the use of water, at least five working days prior to each application of the substance.
77A - Restrictions on nonyl phenol ethoxylates	A person who applies the substance onto or into water must ensure that the substances covered by this approval are not applied onto or into water if they contain nonylphenol ethoxylates as a component of their formulation.
77A - Requirements relating to static water bodies	A person who applies the substance onto or into water must ensure that the substance is not applied, in any single application, onto more than 33% of the surface area of any static water body.

	<p>If applications of the substance onto or into any static water body, taken cumulatively within a seven day period, arrive at more than 33% of the surface area of the water body, the substance must not be applied to any additional sections of the water body for at least seven days after the last application of the substance to that water body.</p> <p>These controls do not apply if the average dissolved oxygen level for the static water body is less than 4 mg/l at the time of application.</p>
77A - Incident reporting for aquatic herbicides	A person who applies the substance onto or into water must ensure that any instances of unintended or accidental by-kills, are reported (including the time, date and location monitoring was undertaken) to the EPA within a week of the application of the substance. This excludes the by-kill of non-target plants that may be expected from the herbicidal nature of the substance.
77A - Requirements for annual reporting	<p>A person who applies the substance onto or into water must ensure that the Environmental Protection Authority is provided with an annual written report by 31st July each year. This report will cover all applications of the substances onto or into water for which they are responsible and must include the following information;</p> <ul style="list-style-type: none"> · A map of all locations where the substance has been applied; · Details of the spray operation by location, including application method used, quantity of the substance applied, rates of application, frequency of application and the dates of application; · Details (including results) of water sampling conducted to confirm compliance with EEL values; · Details of sediment testing conducted; · Details of pest plant species targeted; · Details of dissolved oxygen levels prior to application of the substance to any static water body; · Details of pH testing conducted prior to application of substances containing metsulfuron-methyl; · Details of engagement/consultation activities undertaken; · Details of any incidents reported or complaints received in reference to the application of the substance and details of any actions taken to remedy complaints; and <p>An overall assessment of the outcome of each operation and any proposed follow-up spraying for the forthcoming year.</p>
77A - Requirements relating to migration of whitebait and elvers	A person who applies the substance onto or into water must ensure that the substance is not applied onto or into water bodies where whitebait and elvers may be present during the Department of Conservation's defined local whitebait season relevant to that region. This control shall not apply to any application of the substance to a pest plant infestation area that is less than 5 m ² , where the application is undertaken during surveillance to ensure completion of the eradication of a pest species in that spray area, during the period 1 to 30 November.
77A- Tolerable Exposure Limits	A TEL drinking water has been set for haloxyfop-R-methyl. The TEL value is 0.0021 mg/L.
77A – Environmental Exposure Limits	An EEL water has been set for haloxyfop-R-methyl. The EEL value is 0.84 µg/L.
ACVM Act and Regulations	
See www.foodsafety.govt.nz for registration conditions P8459	

Section 16: OTHER INFORMATION

Glossary

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value—an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2023 14th edition.

3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

The information herein is given in good faith, but no warranty, express or implied is made.

Please contact Ravensdown, if further information is required.

Issue Date: 9 May 2024

Review Date: 9 May 2029