


Holdup

Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

Product Name:	Holdup
Product Code:	7910090 (20 Litres)
Recommended Use:	Plant growth regulator
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

Section 2: HAZARD IDENTIFICATION

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

EPA Approval No:	HSR000806
Pictograms:	
Signal Word:	Warning

GHS Classification and Category	Hazard Code	Hazard Statement
Acute oral toxicity Cat. 4	H302	Harmful if swallowed.
Specific target organ toxicity – repeated exposure Cat. 2	H373	May cause damage to organs through prolonged or repeated exposure.
Corrosive to metals Cat. 1	H290	May be corrosive to metals.
Hazardous to the aquatic environment chronic Cat. 3	H412	Harmful to aquatic life with long lasting effects.
Hazardous to soil organisms.	H422	Hazardous to soil organisms.
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.
P234	Keep only in original container.
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.

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.

P390	Absorb spillage to prevent material damage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Storage Code	Storage Statement
P406	Store in corrosive resistant container with a resistant inner liner.
Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3: COMPOSITION INFORMATION

INGREDIENT	CAS No.	CONTENT
Mepiquat chloride	24307-26-4	30.5%
Ethephon	16672-87-0	15.5%
Acetic Acid	64-19-7	<2%
Other non-hazardous constituents		To volume

Section 4: FIRST AID MEASURES

Routes of Exposure:	
If in eyes:	Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
If on skin:	Remove contaminated clothing and wash affected area thoroughly with soap and water. If a large area is affected seek medical assistance.
If ingested:	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:	
Eyes:	Not applicable.
Skin:	Not applicable.
Ingested:	Harmful if swallowed.
Inhaled:	Not applicable.
Chronic:	May cause damage to organs through prolonged or repeated exposure.
Notes to Doctor:	Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Hazard Type	Non Flammable
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	2X

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>Avoid contact with skin, eyes and inhalation of spray mist.</p> <p>Keep only in original container.</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>
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	Avoid release to the environment. Record Keeping: Records of use in accordance with NZS 8409 Management of Agrichemicals must be kept.
Storage:	Keep out of reach of children. Store away from incompatible materials listed in Section 10. Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertiliser and seed. Store in corrosive resistant container with a resistant inner liner. Store in accordance with NZS 8409 Management of Agrichemicals This product is subject to signage and secondary containment when stored in quantities of 1000L or more, either alone or in aggregate with substances of the same hazard classification. More than 1000 litres require emergency response plans. For full details refer to NZS 8409 Management of Agrichemicals and HSNO Regulations (Emergency Management and Identification Regulations).

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance		TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Acetic acid	[64-19-7]	10	25	15	37

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.
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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 waterproof gloves, cotton overalls buttoned to the neck and wrist, and boots.
Respiratory:	Handle in well ventilated area.
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 amber
Odour	Odourless
Odour Threshold	Not available
pH	0.8
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not flammable
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	1.1
Water Solubility	Soluble 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	(SL) Soluble 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	None known.
Incompatible Materials	Avoid contact with strong acids and oxidising agents. Corrosive to metals.
Hazardous Decomposition Products	None known.

Section 11: TOXICOLOGICAL INFORMATION

Acute Effects:

Swallowed	Harmful if swallowed.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Not applicable.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	May causes damage to organs (oral) through repeated or prolonged exposure.

Inhalation:

Acute Toxicity LC₅₀ (rat) (7hr) >3.2mg/L (mepiquat chloride)

Acute Toxicity

LC₅₀ (rat) (4hr) >6.3mg/L (ethephon)

Single exposure to vapours is unlikely to be hazardous. When applying this product avoid inhalation of spray mist.

Ingestion:

Acute Toxicity (Oral) LD₅₀ (rat) 464mg/kg (mepiquat chloride)

Acute Toxicity (Oral) LD₅₀ (rat) 3030mg/kg (ethephon)

Amounts swallowed incidental to normal handling are unlikely to cause injury. Large amounts swallowed may cause injury.

Skin:

Acute Toxicity (Dermal) LD₅₀ (rabbit) >2000mg/kg (mepiquat chloride)

Acute Toxicity (Dermal) LD₅₀ (rabbit) 1560mg/kg (ethephon)

Section 12: ECOLOGICAL INFORMATION

Harmful to aquatic life with long lasting effects.

Hazardous to soil organisms.

Hazardous to terrestrial vertebrates.

Product:

Persistence and degradability	Biodegradable. Half-life 10 days
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 (rainbow trout) (96hr) 4300mg/l (mepiquat chloride)

LC₅₀ (rainbow trout) (96hr) 720mg/l (ethephon)

Acute Toxicity (daphnia)

EC₅₀ (48hr) 68.5mg/l (mepiquat chloride)

EC₅₀ (48hr) 577mg/l (ethephon)

Harmful to fish and other aquatic organisms

Acute Toxicity (birds)LD₅₀ (bobtail quail) >2000mg/kg (mepiquat chloride)LD₅₀ (bobtail quail) 1072mg/kg (ethephon)**Toxic to terrestrial vertebrates****Non-toxic to bees****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	3265
Class - Primary	8
Packing Group	III
Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S (CHLORETHEPHON 15%)
Marine Pollutant	No
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 2017

EPA Approval Code: HSR000806

HSW (HS) Regulations 2017	Trigger Quantity
Signage Trigger Quantities (Schedule 3)	1000L
Emergency Response Plan (Schedule 5)	1000L
Secondary Containment (Schedule 5)	1000L
Tracking (Schedule 26)	Not required
Certified Handlers	Not required
HSNO Additional Controls (Restrictions of use)	
77A -	The substance must not be applied onto or into water.
ACVM Act and Regulations	
See www.foodsafety.govt.nz for registration conditions	P7071

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

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Please contact Ravensdown, if further information is required.

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