

# SAFETY DATA SHEET

According to  
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

## Section 1. Identification of the material and the supplier

Product: **Mepipal**  
 Product Use: Plant growth regulator  
 Restriction of Use: Refer to Section 15

New Zealand Supplier: **Agrisource 2000 Ltd**  
 Address: 45 Kitchener Road  
 Pukekohe, Auckland

Telephone: +64 9 237 0422  
**Emergency No: 0800 764 766 (National Poison Centre)**

Date of SDS Preparation: 31 August 2020

## Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

**EPA Approval No: HSR101134**

### Pictograms:



Toxic



Chronic



Corrosive



Ecotoxic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1D (oral)	H302	Harmful if swallowed.	Acute Tox. 4
6.9B	H373	May cause damage to organs through prolonged or repeated exposure.	STOT RE 2
8.2C	H314	Causes severe skin burns and eye damage.	Skin Corr. 1C
8.3A	H318	Causes serious eye damage.	Eye Corr. 1
9.1C	H412	Harmful to aquatic life with long lasting effects.	Aquatic Chronic 3
9.2B	H422	Toxic to the soil environment.	-
9.3B	H432	Toxic to terrestrial vertebrates.	-

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P260	Do not breathe mist, vapours or spray.

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SDS Prepared by: Technical Compliance Consultants (NZ) Ltd  
 Tel: 64 9 475 5240 www.techcomp.co.nz

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.

<b>Response Code</b>	<b>Response Statement</b>
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

<b>Storage Code</b>	<b>Storage Statement</b>
P405	Store locked up.

<b>Disposal Code</b>	<b>Disposal Statement</b>
P501	Dispose of according to Local Regulations or Authorities

### **Section 3. Composition / Information on Hazardous Ingredients**

<b>Ingredients</b>	<b>Concentration</b>	<b>CAS NUMBER.</b>
Chlorethephon	155 g/L	16772-87-0
Mepiquat-chloride	305 g/L	24307-26-4
Other components	To 1L	-

### **Section 4. First Aid Measures**

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. If eye irritation persists: Get medical advice.
If on Skin	Wash with plenty of water. Take off contaminated clothing and wash it before reuse. Seek medical assistance if needed. If skin irritation persists: Get medical advice.
If Swallowed	Rinse mouth immediately and drink plenty of water. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Contact the National Poisons Centre or seek medical attention immediately.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

## Most important symptoms and effects, both acute and delayed

Symptoms:	
Swallowed:	Harmful if swallowed
Skin:	Causes severe skin burns.
Eyes:	Causes serious eye damage.
Chronic:	May cause damage to organs (oral) through prolonged or repeated exposure.

### Section 5. Fire Fighting Measures

<b>Hazard Type</b>	Non Flammable.
<b>Hazards from combustion products</b>	Carbon monoxide, Hydrogen chloride, Carbon dioxide, Nitrogen oxides, Phosphorus oxides.
<b>Suitable Extinguishing media</b>	Water spray, foam, dry powder, carbon dioxide.
<b>Precautions for firefighters and special protective clothing</b>	Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapors generated.
<b>HAZCHEM CODE</b>	2X

### Section 6. Accidental Release Measures

Wear PPE as detailed in Section 8. Evacuate all unnecessary personnel.

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder).

For large amounts: Dike spillage. Pump off product.

Collect waste in suitable containers, which can be labelled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Dispose of contained wastes in accordance with the requirements of Local Authorities as detailed in Section 13.

### Section 7. Handling and Storage

#### Precautions for Handling:

- Read label before use.
- Do not breathe mist, vapours or spray.
- Avoid contact with skin and eyes.
- Ensure adequate ventilation.
- Keep away from: sparks, open flame and direct sunlight.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.

#### Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store locked up in original packaging.
- Keep tightly closed in a dry, cool and well-ventilated place.
- Keep away from direct sunlight.

**WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**

Substance	TWA		STEL	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>

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 2019 11<sup>TH</sup> EDITION.

**Engineering Controls**

Ensure local ventilation is adequate and where a respirator if ventilation is inadequate.

**Personal Protective Equipment**

<b>Eyes</b>	When handling wear eye protection.
<b>Hands/skin</b>	Wear protective chemical resistant gloves. Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls of PE must be discarded after use if contaminated. In cases of appreciable or prolonged exposure, coveralls of barrier laminate may be required.
<b>Respiratory</b>	Wear respiratory protection if ventilation is inadequate. Use particle filter with medium efficiency for solid and liquid particles.
<b>General</b>	Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

**Section 9****Physical and Chemical Properties**

<b>Appearance</b>	Liquid
<b>Colour</b>	Colourless
<b>Odour</b>	Characteristic
<b>Odour Threshold</b>	Not available
<b>pH</b>	0.5 - 1.5
<b>Boiling Point</b>	Not available
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	Not available
<b>Flammability</b>	Not available
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Vapour Density</b>	Not available
<b>Density</b>	1.098 g/ml
<b>Water Solubility</b>	Not available
<b>Partition Coefficient:</b>	Not available
<b>Auto-ignition</b>	Not available

<b>Temperature</b>	
<b>Decomposition Temperature</b>	Not available
<b>Viscosity / dynamic</b>	Not available
<b>Octanol/Water Particle Coefficient</b>	Not available

## Section 10. Stability and Reactivity

<b>Stability of Substance</b>	Stable under normal storage conditions in original container for at least two years.
<b>Possibility of hazardous reactions</b>	None known.
<b>Conditions to Avoid</b>	Store away from incompatible substances.
<b>Incompatible Materials</b>	Strong acids, strong bases, strong oxidizing agents.
<b>Hazardous Decomposition Products</b>	No known hazardous decomposition products.

## Section 11 Toxicological Information

### Acute Effects:

<b>Swallowed</b>	Harmful if swallowed. Acute oral LD50 for rats 500-2000 mg/kg.
<b>Dermal</b>	Not applicable. Acute dermal LD50 for rats >4000.
<b>Inhalation</b>	Not applicable. Inhalation LC50 (4 h) for rats >5.2 mg/l air
<b>Eye</b>	Causes serious eye damage.
<b>Skin</b>	Causes skin burns.

### Chronic Effects:

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

## Section 12. Ecotoxicological Information

HSNO Classes: 9.1C = Harmful to aquatic life with long lasting effects.  
9.2B = Toxic to the soil environment.  
9.3B = Toxic to terrestrial vertebrates.

<b>Product</b>	
<b>Persistence and degradability</b>	Biodegradable. Half-life 10 days
<b>Bioaccumulation</b>	No data available
<b>Mobility in Soil</b>	No data available
<b>Other adverse effects</b>	No data available

### 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)

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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

Do not allow to enter waterways.

**Section 13. Disposal Considerations**

**Disposal Method:**

Triple rinse container and add rinsate to spray tank. Dispose of cleaned container at your local AGRECOVERY container collection site.



**Precautions or methods to avoid:** Avoid release to the environment.

**Section 14 Transport Information**

**This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2012**



**Road, Rail, Sea and Air Transport**

<b>UN No</b>	3265
<b>Class - Primary</b>	8
<b>Packing Group</b>	III
<b>Proper Shipping Name</b>	CORROSIVE LIQUID, N.O.S. (Contains CHLORETHEPHON)
<b>Marine Pollutant</b>	No
<b>Special Provisions</b>	If the product's individual container is below 5L/kg, 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: HSR101134

HSNO Classification: 6.1D(oral), 6.9B, 8.2C, 8.3A, 9.1C, 9.2B, 9.3B

<b>HSW (HS) Regulations 2017</b>	<b>Trigger Quantity</b>
Signage Trigger Quantities (Schedule 3)	1000L (9.1C)
Emergency Response Plan (Schedule 5)	1000L (9.1C)
Secondary Containment (Schedule 5)	1000L (9.1C)
Tracking (Schedule 26)	Not required

Certified Handlers	Not required
<b>HSNO Additional Controls (Restrictions of use)</b>	
77A – The substance must not be applied onto or into water.	where 'water' means water in all its physical forms, whether flowing or not, and whether over or under ground, but does not include water in any form while in a pipe, tank or cistern or water used in the dilution of the substance prior to application or water used to rinse the container after use
77A The maximum level of an impurity in the technical grade active material for this substance is set.	The following limits are set for the toxicologically-relevant impurities in chlorethephon used to manufacture this substance: 1)MEPHA (Mono 2-chloroethyl ester, 2-chloroethyl phosphonic acid): 20 g/kg 2) 1,2-Dichloroethane: 0.5 g/kg
77A A restriction has been placed on the application method for this substance.	Ground-based methods of applying pesticides include, but are not limited to, application by ground boom, airblast or knapsack, and do not include aerial application methods.
<b>Hazardous Property Controls Notice 2017</b>	
HPC Notice Part 4 Clause 47	Equipment for class 9 substances must be appropriate
HPC Notice Part 4 Clause 48	Records of application of class 9 pesticides and plant growth regulators
HPC Notice Part 3	Hazardous substances in a place other than a workplace.
HPC Notice Part 4 Subpart A	Site and storage controls for class 9 substances
<b>ACVM Act and Regulations</b>	
See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration Conditions	P9812

## Section 16 Other Information

### Glossary

EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	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 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

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Please contact the Agrisource 2000 Ltd, if further information is required.

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