




## Betamix

### Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

<b>Product Name:</b>	<b>Betamix</b>
<b>Product Code:</b>	7965489 (10L)
<b>Recommended Use:</b>	Herbicide for control of broad-leaved weeds in fodder, sugar and red beets
<b>Restrictions of Use:</b>	Refer to Section 15
<b>Company Identification:</b>	Ravensdown Limited
<b>Address:</b>	292 Main South Road, Hornby, Christchurch, 8042 PO Box 1049, Christchurch 8011
<b>Customer Centre:</b>	0800 100 123
<b>National Poisons Information Centre:</b>	0800 POISON (0800 764 766)
<b>Emergency Phone Number:</b>	0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)
<b>Transport Emergency Phone Number:</b>	111 - tell operator what service is needed: Fire, Ambulance or Police
<b>Date of SDS Preparation</b>	26 May 2022

### Section 2: HAZARD IDENTIFICATION

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

<b>EPA Approval No:</b>	<b>HSR101472</b>
<b>Pictograms:</b>	   Irritant      Chronic      Ecotoxic
<b>Signal Word:</b>	<b>Warning</b>

Hazard Code	Hazard Statement	GHS Classification and Category
H319	Causes serious eye irritation.	Eye irritation Cat. 2
H317	May cause an allergic skin reaction.	Skin sensitisation Cat. 1
H373	May cause damage to organs through prolonged or repeated exposure.	Specific target organ toxicity – repeated exposure Cat. 2
H400	Very toxic to aquatic life.	Hazardous to the aquatic environment acute/chronic Cat. 1
H421	Hazardous to soil organisms	Hazardous to soil organisms

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P260	Do not breathe fumes, vapours or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
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.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

<b>Storage Code</b>	<b>Storage Statement</b>
None allocated	

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

### Section 3: COMPOSITION INFORMATION

Ingredients	Wt%	CAS NUMBER.
desmedipham (ISO); ethyl 3-phenylcarbamoyloxyphenylcarbamate	15 - <20%	13684-56-5
phenmedipham (ISO); methyl 3-(3-methylcarbaniloxy)carbanilate	15 - <20%	13684-63-4
non-hazardous ingredients	Balance	-

### Section 4: FIRST AID MEASURES

<b>Routes of Exposure:</b>	
<b>If in eyes:</b>	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.
<b>If on skin:</b>	After contact with skin, wash immediately with plenty of water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
<b>If ingested:</b>	Wash out mouth thoroughly with 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. Seek medical attention if needed.
<b>If inhaled:</b>	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.
<b>Most important symptoms and effects, both acute and delayed</b>	
<b>Symptoms:</b>	Causes serious eye irritation. May cause an allergic skin reaction. May cause damage to organs (oral) through prolonged or repeated exposure.
<b>Notes to Doctor:</b>	Treat Symptomatically

### Section 5: FIRE FIGHTING MEASURES

<b>Hazard Type</b>	Non Flammable
<b>Hazards from combustion products</b>	No data available.
<b>Suitable Extinguishing media</b>	Co-ordinate fire-fighting measures to the fire surroundings.
<b>Precautions for firefighters and special protective clothing</b>	Wear a self-contained breathing apparatus. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
<b>HAZCHEM CODE</b>	<b>3Z</b>

### Section 6: ACCIDENTIAL RELEASE MEASURES

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Minimise runoff into waterways or drains. Dispose of contained wastes in accordance with the requirements of Local Authorities as detailed in Section 13.

### Section 7: HANDLING AND STORAGE

<b>Handling:</b>	<p>Read label before use.</p> <p>Do not breathe fumes, vapours or spray.</p> <p>Wash hands thoroughly after handling.</p> <p>Contaminated work clothing should not be allowed out of the workplace.</p> <p>Avoid release to the environment.</p> <p>Wear protective clothing as detailed in Section 8.</p>
<b>Storage:</b>	Store away from incompatible materials listed in Section 10.

<p>Keep container tightly closed. Keep out of reach of children. Store in accordance with NZS 8409 Management of Agrichemicals. Store in original container tightly closed and in a locked dry, cool, well-ventilated area, away from foodstuffs, out of direct sunlight and away from incompatible materials listed in Section 10. Storage of more than more than 100 litres it is subject to secondary containment and signage. More than 100L require emergency response plans.</p>
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## Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

### 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.

<b>Engineering Controls:</b>	If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.
<b>Personal Protection Equipment:</b>	
	
<b>Eyes:</b>	Wear chemical goggles or face shield.
<b>Hands:</b>	When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
<b>Skin:</b>	Wear suitable protective clothing.
<b>Respiratory:</b>	In case of inadequate ventilation wear respiratory protection.
<b>General:</b>	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

<b>Appearance</b>	Liquid
<b>Colour</b>	Light yellow to brown
<b>Odour</b>	Characteristic
<b>Odour Threshold</b>	Not available
<b>pH @20°C</b>	3.1
<b>Boiling Point</b>	Not available
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	>100°C
<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 (@20°C)</b>	1,062 g/cm <sup>3</sup>
<b>Solubility</b>	Not available
<b>Partition Coefficient:</b>	Not available
<b>Auto-ignition Temperature</b>	340 °C
<b>Decomposition Temperature</b>	Not available
<b>Viscosity / kinematic: (at 40 °C)</b>	125 mm <sup>2</sup> /s
<b>Octanol/Water Particle Coefficient</b>	Not available

## Section 10: STABILITY AND REACTIVITY

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No known hazardous reactions.
<b>Conditions to Avoid</b>	None known.
<b>Incompatible Materials</b>	No data available.
<b>Hazardous Decomposition Products</b>	No known hazardous decomposition products.

## Section 11: TOXICOLOGICAL INFORMATION

### Acute Effects:

<b>Swallowed</b>	Not applicable.
<b>Dermal</b>	Not applicable.
<b>Inhalation</b>	Not applicable.
<b>Eye</b>	Causes serious eye irritation.
<b>Skin</b>	May cause an allergic skin reaction.

### 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>	May cause damage to organs (oral) through prolonged or repeated exposure.

### Acute Toxicity for individual components:

CAS No	Chemical name		Exposure route	Dose	Species	Source	Method
13684-56-5	desmedipham (ISO); ethyl 3-phenylcarbamoyloxyphenylcarbamate		oral	LD <sub>50</sub> 9600 mg/kg	Rat	TOXNET	
	dermal	LD <sub>50</sub> >2000 mg/kg		Rabbit	TOXNET		
	inhalation	Data lacking					
13684-63-4	phenmedipham (ISO); methyl 3-(3-methylcarbaniloyloxy)carbanilate		oral	LD <sub>50</sub> 4000 mg/kg	Rat	Supplier	
	dermal	LD <sub>50</sub> 13600 mg/kg		Rabbit	Supplier		
	inhalation (4 h)	LC <sub>50</sub> >7,0 mg/l		Rat	Supplier		

## Section 12: ECOLOGICAL INFORMATION

GHS Classes:                    Very toxic to aquatic life.  
    Very toxic to the soil environment.

### Product:

<b>Persistence and degradability</b>	The product has not been tested
<b>Bioaccumulation</b>	The product has not been tested.  Individual component data: Partition coefficient n-octanol/water Desmedipham CAS# 13684-56-5 Log PoW =3.39 Phenmedipham CAS# 13684-63-4 Log PoW= 3.59
<b>Mobility in Soil</b>	The product has not been tested
<b>Other adverse effects</b>	No data available

### Individual component information:

CAS No	Chemical name		Aquatic toxicity	Dose	[h]	Species	Source	Method
13684-56-	desmedipham (ISO); ethyl 3-phenylcarbamoyloxyphenylcarbamate		Acute fish toxicity	LC <sub>50</sub> 3,85 mg/l	96 h	fish		
	Acute crustacea	EC <sub>50</sub> 1,85 mg/l		48 h	Daphnia magna			
13684-63-	phenmedipham (ISO); methyl 3-(3-methylcarbaniloyloxy)carbanilate		Acute fish toxicity	LC <sub>50</sub> 3,98 mg/l	96 h	fish	Supplier	
	Acute crustacea	EC <sub>50</sub> 0,41 mg/l		48 h	Daphnia magna	Supplier		

Do not allow to enter waterways.

## 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 5433:2012



### Road, Rail, Sea and Air Transport

<b>UN No</b>	3082
<b>Class - Primary</b>	9
<b>Packing Group</b>	III
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S (Desmedipham+Phenmedipham)
<b>Marine Pollutant</b>	Yes
<b>Special Provisions</b>	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:** HSR101472

### GHS Classification:

Eye irritation Cat. 2
Skin sensitisation Cat. 1
Specific target organ toxicity – repeated exposure Cat. 2
Hazardous to the aquatic environment acute/chronic Cat. 1
Hazardous to soil organisms

HSW (HS) Regulations 2017	Trigger Quantity
Signage Trigger Quantities (Schedule 3)	100L (Hazardous to the aquatic environment acute/chronic Cat. 1)
Emergency Response Plan (Schedule 5)	100L (Hazardous to the aquatic environment acute/chronic Cat. 1)
Secondary Containment (Schedule 5)	100L (Hazardous to the aquatic environment acute/chronic Cat. 1)
Tracking (Schedule 26)	Not required
Certified Handlers	Not required
Location Certificate	Not required

HSNO Additional Controls (Restrictions of use)	
77A	This substance must not be applied onto or into water. This substance must be applied by ground-based methods only. This substance must not be applied when wind speeds are less than 3km/hr or more than 20 km/hr as measured at the application site.

Hazardous Property Controls Notice 2017	
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 4 Clause 50	The maximum application rate of this substance is 0.72kg of desmedipham/ha and 0.72kg of phenmedipham/ha per calendar year.
HPC Notice Part 3	Hazardous substances in a place other than a workplace.
HPC Part 2	Certain substances restricted to workplaces only.
HPC Notice Part 4 Subpart A	Site and storage controls for class 9 substances

ACVM Act and Regulations	
See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration conditions	P9877

## 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

### 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

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Please contact Ravensdown Ltd if further information is required.

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