

SAFETY DATA SHEET

Glucalmax

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Section 1. Identification

Product identifier	: Glucalmax
Product code	: 122000017685
Other means of identification	: 81882266, GLUCALMAX METABOLIC

Relevant identified uses of th	e substance or mixture and uses advised against
Identified uses	: Veterinary product.
Uses advised against	: None known.
Company Name	: Elanco New Zealand 106 Wiri Station Road, Manukau, Auckland 2140
Telephone number	: +64 0800 352 626
Emergency telephone number	0800 446 121 (Adverse Events Local Number) : CHEMTREC International: 00 1 703-527-3887 (24 hours) CHEMTREC: +64 9-801 0034 (Local) CHEMTREC: 0800 425 459 (Freephone)
Email	: elanco_sds@elancoah.com

Section 2. Hazards identification

HSNO Approval Number	: HSR100757
HSNO Group Standard	: Veterinary Medicines (Limited Pack Size, Finished Dose)
HSNO Classification	: REPRODUCTIVE TOXICITY - Category 2
	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 52.5%

This material is classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

This material is not classified as DANGEROUS GOODS according to criteria in New Zealand Standard 5433:2020 Transport of Dangerous Goods on Land.

GHS label elements		
Signal word	:	Warning
Hazard statements	:	H361 - Suspected of damaging fertility or the unborn child.
Precautionary statements		
Prevention	:	 P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.
Response	:	P308 + P313 - IF exposed or concerned: Get medical advice or attention.
Storage	:	P405 - Store locked up.
Disposal	1	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Symbol	:	

Other hazards which do not : None known. result in classification

Section 3. Composition/information on ingredients

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: Mixture

Ingredient name	% (w/w)	CAS number
Boric acid	≤5	10043-35-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary f	irst aid measures
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	 Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Most important symptoms	/effects, acute and delayed
Potential acute health eff	ects
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Eye contact	: No known significant effects or critical hazards.
<u>Over-exposure signs/syn</u>	ptoms
Inhalation	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Skin	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Eyes	: No specific data.
Indication of immediate m	edical attention and special treatment needed, if necessary
Specific treatments	: No specific treatment.
Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 4. First aid measures

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media		
Suitable	an extinguishing agent suitable for the surrounding	fire.
Not suitable	e known.	
Specific hazards arising from the chemical	fire or if heated, a pressure increase will occur and	the container may burst.
Hazardous thermal decomposition products	omposition products may include the following mate on dioxide on monoxide genated compounds al oxide/oxides	ərials:
Hazchem code	available.	
Special precautions for fire- fighters	nptly isolate the scene by removing all persons from e is a fire. No action shall be taken involving any pe ble training.	
Special protective equipment for fire-fighters	fighters should wear appropriate protective equipm thing apparatus (SCBA) with a full face-piece opera e.	

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	:	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and material for con	nta	inment and cleaning up
Small spill	-	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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Section 7. Handling and storage

Protective measures		
Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters Occupational exposure limits Ingredient name **Exposure limits** None. **Biological exposure indices** No exposure indices known. **Appropriate engineering** : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker controls exposure to airborne contaminants below any recommended or statutory limits. Emissions from ventilation or work process equipment should be checked to ensure **Environmental exposure** 2 they comply with the requirements of environmental protection legislation. In some controls cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. Individual protection measures **Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Safety eyewear complying with an approved standard should be used when a risk Eye/face protection ŝ, assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Skin protection

Section 8. Exposure controls/personal protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.Other skin protection: Appropriate footwear and any additional skin protection measures should be approved by a specialist before handling this product.Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.	•	
Descriptionbeing performed and the risks involved and should be approved by a specialist before handling this product.Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important	Hand protection	be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately
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appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important	Other skin protection	selected based on the task being performed and the risks involved and should be
	Respiratory protection	appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important

Section 9. Physical and chemical properties and safety characteristics

: Not available.

: Not available.

: Not available.

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	:	Liquid.
Colour	:	Not available.
Odour	1	Not available.
Odour threshold	1	Not available.
рН	1	Not available.
Melting point/freezing point	:	Not available.
Boiling point, initial boiling point, and boiling range	:	Not available.
Flash point	:	

	Closed cup			Open cup		
Ingredient name	°C	°F	Method	°C	°F	Method
sodium benzoate	>100	>212				

Evaporation rate Flammability Lower and upper explosion limit/flammability limit

Vapour pressure	1		Vapour Pressure at 20°C			Vapour pressure at 50°C		sure at 50°C
		Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
		water	23.8	3.2				
		boric acid	0.00000074	0.000000099	EU A.4			
Relative vapour density	:	Not available.						
Relative density	:	1.205 to 1.225						
Solubility(ies)	:	Not available.						
Solubility in water	:	Not available.						
Partition coefficient: n- octanol/water	:	Not applicable.						
Auto-ignition temperature	1							

Section 9. Physical and chemical properties and safety characteristics

		Ingredient name	°C	°F	Method
		sodium benzoate	>500	>932	
Decomposition temperature	:	Not available.			
Viscosity	:	Not available.			
Flow time (ISO 2431)	:	Not available.			
Particle characteristics					
Median particle size	:	Not applicable.			

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.Chemical stability: The product is stable.Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.Conditions to avoid: No specific data.Incompatible materials: No specific data.Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products		
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.Conditions to avoid: No specific data.Incompatible materials: No specific data.Hazardous decomposition: Under normal conditions of storage and use, hazardous decomposition products	Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
reactions Conditions to avoid : No specific data. Incompatible materials : No specific data. Hazardous decomposition : Under normal conditions of storage and use, hazardous decomposition products	Chemical stability	: The product is stable.
Incompatible materials : No specific data. Hazardous decomposition : Under normal conditions of storage and use, hazardous decomposition products		: Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous decomposition : Under normal conditions of storage and use, hazardous decomposition products	Conditions to avoid	: No specific data.
\mathbf{I}	Incompatible materials	: No specific data.

Section 11. Toxicological information

Information on likely routes of exposure						
Inhalation	alation : No known significant effects or critical hazards.					
Ingestion	: No known significant effects or critical hazards.					
Skin contact	: No known significant effects or critical hazards.					
Eye contact	: No known significant effects or critical hazards.					
Symptoms related to	the physical, chemical and toxicological characteristics					
Inhalation	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations					
Ingestion	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations					
Skin contact	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations					
Eye contact	: No specific data.					

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity

Not available.

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Boric acid	Skin - Mild irritant	Human	-	72 hours 15 mg l	-

Sensitisation

Not available.

Potential chronic health effects

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General	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Eye contact	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: Suspected of damaging the unborn child.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: Suspected of damaging fertility.
Chronic toxicity	
Not available.	
Carcinogenicity	
Not available.	
Mutagonicity	
Mutagenicity Not available.	
Teratogenicity	
Not available.	
Reproductive toxicity	
Not available.	
Specific target organ toxic	ity (single exposure)
Not available.	<u>, (</u>
Specific target organ toxic	<u>ity (repeated exposure)</u>
Not available.	
Aspiration hazard	
Not available.	

Numerical measures of toxicity

Acute toxicity estimates

N/A

Section 12. Ecological information

Ecotoxicity

: No known significant effects or critical hazards.

Aquatic and terrestrial toxicity

Section 12 Ecological information

Product/ingredient name	Result	Species	Exposure			
boric acid	Acute LC50 45.5 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 hours			
	Acute LC50 133000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours			
	Acute LC50 75 mg/l Marine water Chronic NOEC 6000 μg/l Fresh water Chronic NOEC 2100 μg/l Fresh water	Fish - Pagrus major Daphnia - Daphnia magna Fish - Oncorhynchus mykiss	96 hours 21 days 87 days			

Persistence/degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
boric acid	-1.09	-	Low

<u>Mobility in soil</u>		
Soil/water partition coefficient (Koc)	: Not available.	
Other adverse effects	: No known significant effects or critical hazards.	

Section 13. Disposal considerations

Disposal methods	: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	New Zealand - Land - road/ railway	IMDG	ΙΑΤΑ
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available. to IMO instruments

Section 15. Regulatory information

HSNO Approval Number	: HSR100757
HSNO Group Standard	: Veterinary Medicines (Limited Pack Size, Finished Dose)
HSNO Classification	: REPRODUCTIVE TOXICITY - Category 2
ACVM No.	: A001441
Inventory list	
New Zealand	: Not determined.

Section 16. Other information

<u>History</u>	
Date of issue/Date of revision	: 5/23/2023
Date of previous issue	: No previous validation
Version	: 0.01
Key to abbreviations	 ADG = Australian Dangerous Goods ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail SGG = Segregation Group UN = United Nations
References	: Not available.

Indicates information that has changed from previously issued version.

Notice to reader

As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

For additional information contact: **Elanco Animal Health** 0011+1-877-352-6261 0011+1-800-428-4441