



SAFETY DATA SHEET

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

Section 1. Identification of the material and the supplier

Product: **Bud Mate™**
Product Use: Plant food, activator and catalyst for professional applicators.
Chemical Family: Plant / crop nutrition
Product Description: Liquid fertiliser, for the correction/prevention of nutrient deficiencies
Restriction of Use: Refer to Section 15
New Zealand Supplier: **Agrichem**
Address: Level 2, Fidelity House
81 Carlton Gore Road
Newmarket, Auckland
Telephone: 0800 379 180
Emergency No: 0800 764 766 (National Poison Centre)
Date of SDS Preparation: 12 February 2019

Section 2. Hazards Identification

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

EPA Approval No: Fertilisers (subsidiary) – HSR002571

Pictograms



Irritant



Chronic



Ecotoxic

Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.3B	H316	Causes mild skin irritation.	Skin Irrit. 3
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
6.8B	H361	Suspected of damaging fertility or the unborn child.	Repr. 2
9.1B	H411	Toxic to aquatic life with long lasting effects.	Aquatic Chronic 2

Prevention Code	Prevention Statement
P103	Read label before use.
P201	Obtain special instructions before use.

P202	Do not handle until all safety precautions have been read and understood.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective clothing in Section 8.
P281	Use personal protective equipment as required.

Response Code	Response Statement
P391	Collect spillage.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.

Storage Code	Storage Statement
P405	Store locked up.

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

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Calcium Carbonate	>30-<60	471-34-1
Magnesium carbonate	>10-<30	546-93-0
Urea	<10	57-13-6
Zinc oxide	< 10	1314-13-2
Boric acid	< 10	10043-35-3
Water	To bal	

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	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.
If on Skin	Wash with plenty of soap and water. Take contaminated clothing off and wash before reuse. If skin irritation or rash occurs: get medical advice/attention.
If Swallowed	Wash out mouth thoroughly with water. Never give anything to the mouth of an unconscious person. Give a glass of water / milk to drink provided victim is able to swallow. Never give anything by mouth to an unconscious person. Seek medical help if needed.
If Inhaled	Avoid breathing mist, spray or vapour. 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:

Ingestion:	Not applicable.
Inhalation:	Not applicable.
Skin:	Causes mild skin irritation.
Eye:	Causes severe eye irritation.

Chronic: Suspected of damaging fertility or the unborn child.

Advice to Doctor: Treat symptomatically based on judgement of doctor and individual reactions of patient. If patient has inhaled decomposition product (fire) symptoms may be delayed. Exposed person to remain under medical observation for 48 hours.

Section 5. Fire Fighting Measures

Hazard Type	Non-flammable, aqueous solution.
Hazards from combustion products	Containers if heated, resultant increase in pressure may cause container to burst. Do not inhale fumes and or gases of combustion.
Suitable Extinguishing media	Use any means suitable for extinguishing surrounding fire.
Precautions for firefighters and special protective clothing	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment. Clear area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.
HAZCHEM CODE	3Z

Section 6. Accidental Release Measures

Wear protective gear as detailed in Section 8. Evacuate all unnecessary personnel. Avoid accidents, clean up immediately. Slippery when spilt. Increase ventilation. Avoid generating dust from dried product. Stop leak if safe to do so. Isolate the danger area.

Environmental Precautions:

DO NOT let product reach drains or waterways. If product does enter a waterway, advise the authorities. The product is water soluble and high concentrations cause damage to plant roots and foliage via absorption (see section 12).

Land spill: Dike spill with absorbent or impervious materials such as earth, sand or clay. Vacuum, shovel, pump or sweep up the product and place in containers for disposal in accordance with applicable local regulations. Avoid contamination of water bodies during clean up and disposal. See containment section below.

Spillage into water.

Where possible, remove any intact containers from the water. Advice to local water authority that none of the affected water should be used for irrigation or for the abstraction of potable water until natural dilution returns water to normal environmental background levels. Dispose of waste according to the applicable local and national regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe fumes, vapours and spray.
- Prevent against physical damage.
- Wash hands after handling this material.
- Good housekeeping, splash and dust (when product dries) prevention procedures should be followed to minimize exposure and accumulation.
- Ensure an eye bath and safety shower are available and ready for use.
- Avoid release to the environment.
- Wear protective clothing in Section 8.

- Use personal protective equipment as required.

Precautions for Storage:

- Store in a cool, dry, well-ventilated area.
- Keep containers tightly closed and locked up if not in use.
- Inspect regularly for hazards such as damage or leaks.
- Protect against physical damage.
- Store away from incompatible materials as listed in section 10.
- Do not store with food stuffs.
- Use good housekeeping practices to prevent accumulation of product and follow sound cleaning techniques that will prevent contamination.
- Dry indoor storage is recommended.
- Provide appropriate ventilation and store containers such as to prevent any accidental damage.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Limestone (Calcium carbonate) [471-34-1]	-	10	-	-
Magnesite [546-93-0]	-	10	-	-
Zinc oxide [1314-13-2] fume	3	10	-	-
Dust	-	10	-	-

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 2017 9TH EDITION.

Engineering Controls

A system of local and or general exhaust is recommended to keep employee exposure as low as possible. Local exhaust extraction / ventilation is preferred as it controls emissions at the source preventing dispersion of the general work area. Adequate ventilation should be provided so that exposure limits are not exceeded.

Personal Protection Equipment



Eyes	Use chemical safety goggles. Maintain eye wash fountain and quick drench facilities in work area (AS1336/1337).
Hands and skin	Gloves, chemical resistant (AS2161). Lab coat, apron or coveralls and safety footwear (AS3765/2210).
Respiratory	Respirators should be used for conditions of use where exposure to spray or mist is apparent and engineering controls are not feasible.
General	An emergency shower or water supply should be readily accessible to the work area. Thoroughly wash hands, forearms and face after using product, prior to eating, smoking using toilet or at end of work period. Contaminated clothing to be laundered prior to re-use.

Section 9 Physical and Chemical Properties

Appearance	Liquid (suspension)
Colour	Black
Odour	Slight, Characteristic

Odour Threshold	Not available
pH	8.0 – 9.5
Boiling Point	>100°C
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Non Flammable
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	1.57 – 1.59
Water Solubility	Sparingly soluble in water (aqueous suspension)
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	>800 centipoise
Particle Size	<150 µm

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal handling and storage conditions.
Possibility of hazardous reactions	None known.
Conditions to Avoid	Excessive heat, do not store near heat or flames or temperatures below 5°C.
Incompatible Materials	<ol style="list-style-type: none"> 1. Strong bases – ammonia may evolve 2. Strong acids – may react 3. Strong oxidising agents – may decompose
Hazardous Decomposition Products	None known.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes severe eye irritation.
Skin	Causes mild skin irritation.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Suspected of damaging fertility or the unborn child.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

General comments on toxicity of components

Ingredient	CAS	Toxicity
Calcium Carbonate	471-34-1	Oral LD50 6450 mg/kg in the Rat

Magnesium Carbonate	546-93-0	Oral LD50 >8000 mg/kg in the Rat
Urea	57-13-6	Oral LD50 >8471 mg/kg in the Rat
Boric Acid	10043-35-3	Oral LD50 >3500 mg/kg in the Rat
Zinc Oxide	1314-13-2	Oral LD50 8437mg/kg

Section 12. Ecotoxicological Information

HSNO Classes: 9.1B = Toxic to aquatic life with long lasting effects.

Persistence and degradability	Readily biodegradable in plant and soil
Bioaccumulation	Low as all elements are essential to plant life
Mobility in Soil	Largely Insoluble in water
Other adverse effects	No data available

Individual component information :

Boric Acid (Cas No 10043-35-3):

Route	Species	Duration	Value LC50/EC50
Crustacean	Daphnia Magna	48 hr	760 mg/l
Algal	Green Algae	72hr	40 mg/L

Zinc Oxide (Cas No 1314-13-2):

Route	Species	Duration	Value LC50/EC50
	Colinus virginianus (Bobwhite quail)		Oral LD50 566mg/kg

Calcium Carbonate (Cas No 471-34-1):

Route	Species	Duration	Value LC50/EC50
	Gambusia affinis (Western mosquitofish);	24-96 hr	LC50 >56000 mg/l

Urea (Cas No 57-13-6):

Route	Species	Duration	Value LC50/EC50
Algal	Scenedesmus quadricauda (green algae)	-	>10,000 mg/l toxic effect: multiplication inhibition of cell

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. Dispose of container and unused contents in accordance with local requirements.



Small quantities of this product can usually be disposed of at Liquid Waste Disposal sites. No special disposal treatment is required, but local authorities should be consulted about any specific local requirements. Larger volumes of this product are not recommended to be sent to Liquid Waste Disposal sites. Such product should, if possible, be used for an appropriate application.

Precautions or methods to avoid: Do not allow to enter waterways.

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

UN No	3082
Class - Primary	9
Packing Group	III
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S
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 2017

EPA Approval Code: Fertiliser (subsidiary) – HSR002571

HSNO Classification: 6.3B, 6.4A, 6.8B, 9.1B

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L (9.1B)
Emergency Response Plan	1000L (9.1B)
Secondary Containment	1000L (9.1B)
Restriction of Use	Only use for the intended purpose.

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 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

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Please contact the New Zealand distributor, if further information is required.

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