SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	**BREVIS**
Item Code:	
Product Use:	Fruit Thinner
Restriction of Use:	Refer to Section 15
New Zealand Supplier:	ADAMA New Zealand Ltd
Address:	Level 1/93 Bolt Road Tahunanui, Nelson 7011
Telephone:	+64 3 543 8275
Fax Number:	+64 3 543 8274
Emergency Telephone:	**0800 764 766 (National Poison Centre)**
Date of SDS Preparation:	18 July 2018

Section 2. Hazards Identification

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

EPA Approval No: HSR101178

Pictograms

Toxic Eye Corrosive Ecotoxic

Signal Word: **Danger**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1D (oral)	H302	Harmful if swallowed.	Category 4
8.3A	H318	Causes serious eye damage.	Category 1
9.1B	H411	Toxic to aquatic life with long lasting effects.	Category 2
9.2B	H422	Toxic to the soil environment.	-
9.3C	H433	Harmful to terrestrial vertebrates	-

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
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 eye protection/face protection

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P330	Rinse mouth.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.

Storage Code	Storage Statement
None allocated	Store in the original, unopened container in a cool, dry, place, out of direct sunlight and away from stockfeed or foodstuffs. As a Class 9 Substance with Ecotoxicity Classifications storage of BREVIS must be carried out in such a manner as to prevent contamination of waterways. It is recommended that The New Zealand Standard for the Management of Agrichemicals (NZS8409) is followed.

Disposal Code	Disposal Statement
P501	Wherever possible completely use material by using according to label instructions. Dispose of unwanted product and wastes from spillages as hazardous substances in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers and add rinsate to spray tank before puncturing and offering for recycling or landfill. Do not allow product to enter waterways. Do not burn product or container.

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Calcium diformate	70-90	544-17-2
4-amino-3-methyl-6-phenyl-1,2,4-triazin-5-one	10-<25	41394-05-2

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes — Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

If on Skin — Wash with plenty of soap and water. If skin irritation: get medical advice/attention.

If Swallowed — Rinse mouth. Give copious water to drink. Call a POISON CENTER or doctor/physician if you feel unwell.

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. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed
Symptoms:
Ingestion: Harmful if swallowed.
Skin: Not applicable.
Inhalation: Not applicable.

Eyes: Causes severe eye damage.
Chronic: Not applicable.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable.
Hazards from combustion products	Oxides of carbon Oxides of nitrogen Toxic gases
Suitable Extinguishing media	Water spray, foam, dry extinguishing media, carbon dioxide
Precautions for firefighters and special protective clothing	Wear full protection if necessary. Do not breathe fumes. Protective respirator with independent air supply according to size of the fire.
HAZCHEM CODE	**2Z**

Section 6. Accidental Release Measures

Wear full protective clothing as detailed in Section 8. Evacuate area from unnecessary personnel.

Environmental precautions
If leakage occurs, dam up. Resolve leaks if this is possible without risk. Prevent surface and ground water infiltration, as well as ground penetration. Prevent from entering drainage system. If accidental entry into drainage system occurs, inform responsible authorities.

Methods and material for containment and cleaning up
Pick up mechanically and dispose of according to Section 13. Fill the absorbed material into lockable containers. Clean soiled bottles immediately.

Section 7. Handling and Storage

Precautions for Handling:
- Read label before use.
- Ensure good ventilation.
- Avoid build-up of dust.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.
- Wear protective clothing.

Precautions for Storage:
- Store away from incompatible materials listed in Section 10.
- Keep away from children.
- Keep out of access to unauthorized individuals.
- Store product closed and only in original packaging.
- Not to be stored in gangways or stairwells.
- Under all circumstances prevent penetration into the soil.
- Store at room temperature.
- Store in a dry place.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

	TWA		STEL	
Substance	**ppm**	**mg/m3**	**ppm**	**mg/m3**

None of the ingredients have workplace exposure limits listed on WES.

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.

Engineering Controls

Ensure good ventilation. This can be achieved by local suction or general air extraction. If this is insufficient to maintain the concentration under WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.

Personal Protection Equipment

Eyes	Tight fitting protective goggles with side protection (EN166). If applicable face protection (EN166).
Hands and Skin	Universal protective gloves (plant protection). Minimum layer thickness in mm = 0.5. Permeation time in minutes = 120. Protective working garments (eg safety shoes and long sleeved protective garments) should be worn.
Respiratory	Normally not necessary. If the general dust limit is exceeded, breathing masks with fine dust filters are necessary (EN143), code colour white. If applicable filter P2 (EN143), code colour white.

Section 9 Physical and Chemical Properties

Appearance	Cream, white granulate solid
Odour	Slightly characteristic
Odour Threshold	Not applicable
pH	7 (1% CIPAC MT 75.3)
Boiling Point	Not applicable
Melting Point	Not applicable
Flash Point	Not applicable
Flammability	Not highly flammable
Upper and Lower Exposure Limits	Not applicable
Vapour Pressure	Not applicable
Bulk Density	719 g/l (CIPAC MT186, (pour density)
Bulk Density	757 g/l (CIPAC MT186 (tap density)
Relative Density	Not applicable
Solubilities	Not determined
Partition Coefficient:	0.85 (21^0C OECD 117 (n-octanol/water)
Auto-ignition Temperature	396^0C
Viscosity, dynamic	Not applicable
Particle Characteristics	Not applicable

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Conditions to Avoid	Strong heat and moisture.
Incompatible Materials	Strong alkalis, oxidizing substances and strong acids.

Hazardous Decomposition Products	No hazardous decomposition products if stored and handled as prescribed/indicated.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Harmful if swallowed
Dermal	Not applicable
Inhalation	Not applicable
Eye	Corrosive to ocular tissue
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	Not applicable.

Study	Result	Classification/Comments
Acute Oral Toxicity, Rat	LD_{50} > 300 - < 2000 mg/kg bw	GHS Category 4 / S6 Poison
Acute Dermal Toxicity, Rat	LD_{50} > 2000 mg/kg bw	GHS Category 5 (unclassified) / S5 Poison
Acute Inhalation Toxicity, Rat	LC_{50} > 5.1 mg/L	GHS Category 5 / S5 Poison
Acute Skin Irritation/Corrosion, Rabbit	Not irritating	GHS Category 5 (unclassified) / No poisons schedule triggered
In vitro Acute Eye Irritation, Chicken	Not irritating	GHS Category 5 (unclassified) / No poisons schedule triggered
LLNA (Skin Sensitisation), Mouse	Non-sensitiser	

Section 12. Ecotoxicological Information

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

Bervis 150SG			
Toxcity/effect	**Endpoint / Time/ Value / Unit / Organism**	**Test Method**	**Notes**
Toxicity to fish	LC50 (Oncorhynchus mykiss) =96hr >100mg/l	OECD203	
Toxicity to daphnia	EC50 (daphnia magna) = 48h >100mg/l	OECD202	
Toxicity to algae	ErC50 (Psuedokirchnerie lla subcapitata = 72h >5.6mg/l	OECD201	
Toxicity to algae	EyC50 (Psuedokirchnerie lla subcapitata = 72h >1.6mg/l		
Persistence and degradability			n.d.a
Mobility in soil			n.d.a
Results of PBT and vPvB assessment			n.d.a

Other adverse effects			n.d.a
Other organisms	ErC50(Lemna gibba) = 72h 3.05mg/l	OECD221	
Other organisms	EyC50(Lemna gibba) = 72h 2.82mg/l	OECD221	

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method: Wherever possible completely use material by using according to label instructions. Dispose of unwanted product and wastes from spillages as hazardous substances in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers and add rinsate to spray tank before puncturing and offering for recycling or landfill.
Precautions: Do not allow product to enter waterways.
Disposal methods to avoid: Do not burn product or container.

Section 14 Transport Information

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

Road and Rail Transport

UN No:	3077
Class-primary	9
Packing Group	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (METAMITRON)

Air Transport

UN No:	3077
Class-primary	9
Packing Group	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (METAMITRON)

Marine Transport

UN No:	3077
Class-primary	9
Packing Group	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (METAMITRON)

Special Provisions:

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

EPA Approval Code: HSR101178
HSNO Classification: 6.1D (oral), 8.3A, 9.1B, 9.2B, 9.3C

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)
HSNO Additional Controls (Restrictions of use)	
Restrictions of Use	• This substance must not be applied into or onto water • This substance must be applied via ground-based methods only • • This substance must not be applied at rates exceeding 330 g metamitron/ha, twice per year, with a minimum interval of five days between application • A buffer zone of 5 m between the application area and any downwind area containing non-target plants must be observed when applying this substance. • The person in charge of areas treated with this substance must ensure that no person works in contact with the trees treated with the substance until the end of the 3 day re-entry interval.
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 Subpart A	Site and storage controls for class 9 substances
ACVM Act and Regulations	
Registered pursuant to the ACVM Act 1997, See www.foodsafety.govt.nz for registration conditions	No. P009397
For all further controls	Refer to EPA website (www.epa.govt.nz) for controls document - HSR101178

Section 16 Other Information

Glossary

EC50	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC50	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD50	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 issued by TCC (NZ) Ltd and serves as their 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 the New Zealand distributor, if further information is required.

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