

XLR8® Bio

XLR8® Bio is a probiotic formulation combining the key technologies pioneered by VRM Biologik® for soil enhancement and nutrient management. This product helps stimulate biological reactions in soil which enhance carbon sequestration and biological nitrogen fixation. With continued use, this activity contributes to humus building and enhances mycorrhizal activity in the critical root zone. Regular use of XLR8® Bio stimulates the natural biological activity responsible for water manufacture in soil. XLR8® Bio is best used in tandem with VRM Biologik®'s HumiSoil®.

Active ingredient:

Warnings: Not for human consumption. If accidental ingestion occurs, call a poison control centre. Do not use this product in any way contrary to this label. Keep away from eyes and exposed skin. If skin or eye contact occur rinse thoroughly with clean water to avoid irritation. Follow all local laws when disposing of this product. Use in a well-ventilated area. This product has a strong fermentative odour which dissipates quickly after use.

NOT TO BE USED FOR ANY PURPOSE OR IN ANY MANNER CONTRARY TO THE LABEL

Ingredients: Fermented fruit, vegetables and organic material, purified water, cane syrup, yeast.

Storage Instructions: Store in a shaded place until ready to use. DO NOT FREEZE. Keep container closed and free of debris when not in use. DO NOT SHAKE. XLR8® Bio is a fermented product. Colour and odour may vary during storage.

Directions for Use:

Application to Soil (including bare ground, fallow ground and ratoon crop)

Dilute 1:10 in water and apply to soil as a fine mist 7 to 10 days prior to planting. May be sprayed with fertiliser. Reapply 14 days after application of fungicides, herbicides or sterilising agents. Apply once per growing cycle unless otherwise stated.

Crop Type	First Application (L/ Ha)	Subsequent Application (L/ Ha)	Special instructions
Fallow ground	56	37.5	Apply at commencement of fallow, with reapplication after use of fungicides, herbicides or sterilising agents.
Ratoon crop	56	37.5	Apply with fertiliser prior to crop emergence.
Broadacre	75	37.5	Apply with fertiliser after ground preparation. Apply directly to ground after harvest.
Field crops	75	37.5	
Intensive Horticulture	75	37.5	
Tree fruit	75	37.5	Apply directly to soil under tree canopy.
Aquaculture	56	56	Apply as part of pond base preparation 14 days prior to refilling.

Paddy Rice	56	56	Apply as part of paddy floor preparation 14 days prior to refilling.
------------	----	----	--

Application to Plant (Foliar Spray)

Dilute 1:40 and apply as directed in a fine mist.

Crop Type	First Application	Subsequent Application	Special instructions
Field crops	28	19	
Intensive Horticulture	28	19	Ideally applied with other foliar feed.
Tree Fruit	19	19	Apply as a mist under the canopy prior to flowering/fruiting.
Paddy Rice	28	19	After paddy filling, apply to water surface by fine spray.

Application to Plant (Fertigation)

Dilute 1:1 with water and apply through centre pivot or micro-dripper system.

Crop Type	First Application	Subsequent Application	Special instructions
Intensive Horticulture	37.5	37.5	

List of Field Crop Types

Click on crop types below to view case studies:

- Corn
- Sugar cane

List of Intensive Horticulture Types:

- Potato
- Cucumber
- Chilli
- Zucchini

List of Broadacre Types:

- Sugar cane
- Corn
- Wheat



SAFETY DATA SHEET

VRM XLR8® Bio

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier	: 1/5/10
WHMIS Classification	: N/A
Product Use	: Soil enhancer
Manufacturer's Name	: VRM Biologik Pty Ltd
Street Address	: 22 Reward Crescent, Bohle, Queensland 4818 Australia
Phone	: +61 7 4774 6337
Date Prepared	: 16 September 2019

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	%	CAS Number	LD50 of Ingredient	LC50 of Ingredient
Pre-fermented food	80.0	N/A	N/A	N/A
Purified Water	19.67	7732-18-5	N/A	N/A
Syrup	0.3	68425-17-2	N/A	N/A
Yeast	0.03	68876-77-7	N/A	N/A

3. HAZARDS IDENTIFICATION

Poisons Schedule (Australia)	: N/A
Hazard Categories	: N/A
Pictograms	: N/A
Signal Word	: N/A
Hazard Statements	: N/A

4. FIRST AID MEASURES

Contact Point	Detrimental Results	First Aid Measures
Eye Contact :	May result in mild irritation. Avoid contact with water - based contact lenses.	Rinse with water for at least 15 minutes.
Skin Contact :	None at prepared dilutions.	N/A
Ingestion :	May cause nausea if swallowed.	Give water to drink, do not induce vomiting.
Inhalation :	None at prepared dilutions. Note: intentional concentration and inhalation of vapours may be harmful.	Remove victim to open and ventilated area.

5. FIRE FIGHTING MEASURES

Flammable Limits	: Non-Flammable
Means of Extinction	: N/A
Flash Point (Degrees C)	: N/A
Upper Flammable Limit (% by volume)	: N/A
Lower Flammable Limit (% by volume)	: N/A
Auto Ignition Temperature (Degrees C)	: N/A
Explosion Data - Sensitivity to Impact	: N/A
Explosion Data - Sensitivity to Static Discharge	: N/A
Hazardous Combustion Products	: N/A

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures	: Nil
Clean Up Procedures	: Wash area with water to prevent stickiness.
Waste Disposal Information	: Dispose to sewer or with composted material.

7. HANDLING AND STORAGE

Handling	: Avoid excessive shaking. Vent storage containers during transport.
Precautions For Safe Handling	: None
Storage	: Store away from excessive heat.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits	: N/A
Respiratory Protection	: Exercise caution when concentration of vapour is possible.
Ventilation	: Exercise caution when concentration of vapour is possible.
Protective Gloves	: Rubber / Plastic Gloves recommended.
Eye Protection	: None at prepared dilutions.
Other Protective Measures	: None at prepared dilutions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	: Liquid
Odour and Appearance	: Fermented Fragrance / Brown Colour
Odour Threshold	: N/A
Specific Gravity (H ₂ O=1)	: 1
Vapour Density (Air=1)	: As Water
Vapour Pressure (mmHg)	: As Water
Evaporation Rate: (Butyl Acetate=1)	: As Water
Boiling Point (degrees C)	: 100
Freezing Point (degrees C)	: 0
pH	: 3.1 - 3.8
Coefficient of Water/Oil Distribution	: N/A
Solubility In Water	: Liquid Soluble
Percent Volatile By Volume	: < 0.5%



10. STABILITY AND REACTIVITY DATA

Stability	: Alcohol be released when sprayed as aerosol.
Conditions To Avoid	: Excessive direct heat may damage product. Avoid Inhalation of concentrated vapour.
Materials To Avoid	: Contact with Strong Alkali products may result in exothermic reaction.
Hazardous Decomposition Products	: None
Hazardous Polymerisation	: None

11. TOXICOLOGICAL INFORMATION

Effects of Acute Exposure	: N/A
Effects of Chronic Exposure	: N/A

Irritancy of Product

Skin Sensitisation	: N/A
Respiratory Sensitisation	: N/A
Carcinogenicity-IARC	: N/A
Carcinogenicity-ACGIH	: N/A
Reproductive Toxicity	: N/A
Teratogenicity	: N/A
Embryotoxicity	: N/A
Mutagenicity	: N/A

12. ECOLOGICAL INFORMATION

Ecotoxicity	: Nil
Persistence and Degradability	: Nil
Mobility	: Nil
Other Adverse Effects	: Nil
Bioaccumulation potential	: Nil
Environmental Fate	: Nil
Environmental Impact	: Nil

13. DISPOSAL CONSIDERATIONS

General Information	: Dispose to sewer or with composted material.
Special Precautions for Landfil	: Recycle container where possible.



14. TRANSPORT INFORMATION

LAND TRANSPORT

Proper Shipping Name	: VRM XLR8® Bio
Class	: Non-hazardous
Subsidiary Risk(s)	: Nil
EPG	: N/A
UN Number	: N/A
Hazchem	: N/A
Pack Group	: N/A
Special Precautions for user	: Nil

SEA TRANSPORT

Proper Shipping Name	: VRM XLR8® Bio
Class	: Non-hazardous
Subsidiary Risk(s)	: Nil
UN Number	: N/A
Hazchem	: N/A
Pack Group	: N/A

15. REGULATORY INFORMATION

Poisons Schedule	: No Poisons Schedule number allocated
------------------	--

16. OTHER INFORMATION

For information on appropriate emergency procedures, seek medical advice. For emergencies, please contact +61 403 466 820 (24 hours)

VRM BIOLOGIK PTY LTD (ABN 14 137 264 496) - DISCLAIMER STATEMENT

All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy of the information contained herein. VRM Biologik Pty Ltd accepts no responsibility whatsoever arising from reliance on the accuracy of this information and strongly recommends that users of this product obtain their own separate technical advice with respect to the use or handling of this product.