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1. PRODUCT INFORMATION

1.1 Product Identifier:	OPTIMUM Bulb Concentrate
1.2 Relevant uses:	Bulb, Root treatment
1.3 Supplier details:	

Company Details

Name: Ad Terram Treatment Technologies B.V.	Emergency Tel. No. +31(0)228 593813 (after hours)
Address: De Veken 106, 1716 KG, Opmeer	Postal Address: De Veken 106, 1716 KG, Opmeer
Tel. No. +31 (0)228 593813	E-mail Address: info@ad-terram.nl

2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture:**

All components are classified as non-hazardous.

2.2 Label elements:

GRAS – hazard labels not applicable.

2.3 Other hazards:

Potential Acute Health Effects:	None
Health Effects – Inhalation:	None
Carcinogenicity:	No Data Available
Mutagenicity:	No Data Available
Neurotoxicity:	No Data Available

3. COMPOSITION**3.1 Substances**

Hazardous Components:	None
Composition:	All components are non-hazardous



3.2 Mixtures

Hazardous Components:	None
Composition:	All components are non-hazardous

4. FIRST AID MEASURES**4.1 First aid measures**

Product In Eye:	Rinse with water for a few minutes.
Product On Skin:	Wash off with water.
Product Ingested:	Do not induce vomiting. Loosen tight clothing. Seek medical attention

4.2 Most important symptoms and effects, both acute and delayed

Not applicable.

4.3 Indication of any immediate medical attention and special treatment needed

Not applicable.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media	
Small Fires:	Dry chemical powder
Large Fires:	Water spray, fog or foam.
5.2 Special hazards	
Flammability:	May be combustible at high temperatures
Products of combustion:	Carbon Dioxides (CO, CO ₂)
Explosion Hazards in presence of mechanical impact or static discharge:	Not applicable
5.3 Advice for firefighters	
Protective Clothing:	Full chemical resistant suit with self-contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions:	Wear appropriate protective clothing
6.2 Environmental Precautions:	Do not release into natural waterways.



	Prevent entry into basements or confined areas
6.3 Methods and materials for containment and cleaning up:	Sweep up material and place in labeled waste container for later disposal via an authorized waste disposal company

7. HANDLING AND STORAGE

7.1 Precautions for safe handling:	Keep away from heat and sources of ignition.
7.2 Conditions for safe storage:	Keep container in a cool, dry, well ventilated place. Keep away from extreme heat and strong oxidizing agents.
7.3 Specific end use	This product is only to be used for bulb, root treatments

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters:	
Occupational Exposure Limits:	No data available
8.2 Exposure Controls:	
Personal protection - Respiratory:	Use of protective equipment may be desirable. Work in well ventilated room
Personal protection - Hands:	Wear protective gloves
Personal protection - Eyes:	Wear splash goggles
Personal protection - Skin:	Overalls and boots

9. PHYSICAL AND CHEMICAL PROPERTIES
9.1 Information on basic physical and chemical properties

Appearance:	Dark brown liquid
Odour:	Distinct
pH:	3.0 – 4.5
Density (SG):	1.25 – 1.35
Solubility:	Soluble in water
Boiling point:	>100 °C
Flash point:	Not applicable

10. STABILITY AND REACTIVITY

10.1 Reactivity:	Corrosive
10.2 Chemical Stability:	Stable
10.3 Possibility of hazardous reactions	None
10.4 Conditions To Avoid:	Extreme heat and oxidizing agents



10.5 Incompatible materials	No data available
10.6 Hazardous decomposition products	No data available

11. TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

Acute Toxicity:	LD ₅₀ : > 50 000 mg/kg (Rat: oral)
Toxic effects of Humans:	Slightly hazardous in case of ingestion
Chronic Toxicity:	No data available
Carcinogenicity:	No data available
Mutagenicity:	No data available
Reproductive Hazards:	No data available

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity:	No data available
12.2 Persistence and biodegradability:	Non-persistent, fully biodegradable
12.3 Bio accumulative potential:	Does not bioaccumulate
12.4 Mobility in soil:	Non-mobile in soil
12.5 Results of PBT and vPvB assessment:	No data available
12.6 Other adverse effects	Not applicable

13. DISPOSAL CONSIDERATION

13.1 Waste treatment methods:	Non-hazardous waste. Dispose of according to local legislation
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14. TRANSPORT INFORMATION

14.1 UN number: Not applicable
14.2 UN Proper shipping name: Not applicable
14.3 Transport hazard class: Not applicable
14.4 Packing group: III
14.5 Environmental hazards: Negligible
14.6 Special precautions for user: Not applicable
14.7 Transport in bulk according to Annex II of Marpol and IBC Code: Not applicable



15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture:	All components are under the FIFRA exemption rule 25b.
15.2 Chemical Safety assessment	Not applicable

16. OTHER INFORMATION

Handle and apply only as directed.

The information contained in this safety data sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. As the specific conditions of use are outside the supplier's control, the user is responsible for ensuring that the requirements of the relevant legislation are complied with.

17. PREPARED BY

JAN TAMBOER

