



BlackGold™

FOLIAR FERTILIZERS

MATERIAL SAFETY DATA SHEET

1. Basic Information

Company name: Humefert Manufacturing (Pty) Ltd
Address: PO Box 12477, Stellenbosch, 7613, SOUTH AFRICA
Contact numbers: +(27) 21-8867536
Product Name: VIRTUS: Foliar Fertilizers
Product type: Dark brown liquids
Odor: Acidic odor
Derived from: Plant nutrients chelated with AminoFul
CAS Number: 479-66-3, 56-40-6.
EPA Number: Not regulated

Emergency Telephone: +(27) 21-8801758; CHEMTEC (24-Hours emergency number); (800) 4249300; EPA National Response Center; (800) 4248802.

2. Hazards Identification

Hazard Classification: Irritant
Hazardous Ingredient CAS # Limits: None

Not known to be hazardous to man or environment

Ingredients

Chemical Entity	CAS No	Worksafe Exposure Limits	
		TWA mg/m3	STEL mg/m3
Ferrous sulphate	7720-78-7	not set	not set
Copper sulphate	7758-98-7	not set	not set
Zinc sulphate	7733-02-0	not set	not set
Manganese sulphate	7785-87-7	not set	not set
Boric acid	10043-35-3	not set	not set
Sodium molybdate	7631-95-0	not set	not set
Calcium chloride	10043-52-4	not set	not set
Potassium chloride	7447-40-7	not set	not set
Magnesium chloride	7791-18-6	not set	not set

3. Emergency/Hazards overview

Dark brown liquid with an acidic odor. Mild irritant to eyes and skin. Avoid contact with acid substances. Not D.O.T regulated.

HEALTH: 1 REACTIVITY: 0 FLAMMABILITY: 0 ENVIRONMENT: 1

(0= Insignificant; 1= Slight; 2= Moderate; 3= High; 4= Extreme)

4. Potential Health Effects

Eyes and skin:	Mild irritant, may cause redness and burning
Ingestion:	Not determined
Inhalation:	None expected, but aerosol mist may cause mild irritation of nasal mucous membranes.

5. First Aid Measures

Threshold Limits:	N/A
Effects of overexposure:	Contains an acidic mixture. May be harmful if swallowed.
Emergency:	If ingested, dilute with large quantities of water or milk. Further dilution possible with diluted bi-carbon of soda. If spilled on skin wash off with water.
First aid procedures:	Contact a Physician immediately.
Other health warnings:	None

6. Physical and Chemical data

Appearance:	Dark brown to Black liquid
Odor:	Slightly acidic
pH:	2-3
SG:	1.03-1.2
Vapor pressure:	760mm Hg
Boiling point:	100°C
Freezing point:	N/A

7. Stability and Reactivity

Stability:	Stable
Conditions to avoid:	N/A
Incompatibility:	Contact with alkaline materials.
Haz. decomposition products:	None known
Haz. polymerization:	Will not occur

8. Fire Fighting Measures

Flash point:	>211°C – cleveland cup method
Explosive limits:	not determined
Suitable extinguishing media:	water, fog, foam, dust
Special fire fighting procedures:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Unusual fire explosion hazards:	None

9. Accidental Release Measures

Steps to be taken in case material is released or spilled:

Flush with large volumes of water.

Waste disposal:

Follow federal, state and local regulations for liquid waste.

10. Handling and storage

Precautions to be taken:

Store in original container in a dry place. Keep from heating or freezing. Keep out of reach of children.

Other precautions: None.

11. Exposure controls/personal protection

Ventilation:

Work in ventilated area

Personal protective equipment:

Respiratory protection: Use appropriate respiratory protection if working in an enclosed environment

Protective gloves: optional

Eye protection: wear goggles or glasses consistent for handling and applying fertilizers.

Other protective equipment: wear clothing consistent for handling and applying fertilizers

12. Stability and Reactivity

Stability:	Stable
Incompatibility	None known
Hazardous decomposition products:	If burned, CO, CO ₂ and SO ₂ , may be detected

13. Ecological Information

Algal/Lemna growth inhibition:	Not known
Toxicity to Fish and Invertebrates:	Not known
Toxicity to plants:	None
Toxicity to birds:	None known

14. Transportation

D.O.T. information.
Other shipping description:

Not D.O.T. Regulated
Fertilizing compounds – manufactured, liquid
NMFC item Sub 6, LTL Class 70

15. Regulatory Information

CERCLA:	None
SARA Title III, Section 313 toxic chemical:	None
PROPOSITION 65 (CA):	None

16. Other Information

The above information is believed to be correct, but does not purport to be all-inclusive and shall be used only as a guide. Humefert Manufacturing shall not be held liable for any damage resulting from contact with the above product.