

**Section 1: Identification of the substance/mixture and of the company/undertaking**

**1.1: Product Identifier**

Trade name: Tuxedo

**1.2: Relevant identified uses of the substance or mixture and uses advised against**

Registered uses: Seed Treatment.  
Uses advised against: None known.

**1.3: Details of the supplier of the safety data sheet**

Company name: Verdesian Life Sciences LLC  
Manufacturer address: 1001 Winstead Drive  
Cary  
NC-27513  
USA  
Manufacturer telephone: +1 919 825 1901  
European contact name: Verdesian Life Sciences Europe Ltd  
Manufacturer address: 7 Rotherbrook Court  
Bedford Road  
Petersfield  
Hampshire  
GU32 3QG  
United Kingdom  
Manufacturer telephone: +44 (0)1730 720 100  
Homepage: [www.vlsci.com](http://www.vlsci.com)  
Email (for SDS enquiries): [info@kerona.ie](mailto:info@kerona.ie)

**1.4: Emergency telephone number**

Emergency telephone: +44 1325 314848 (Mon-Fri, 09:00 – 16:00)

**Section 2: Hazards Identification**

**2.1 Classification of the substance or mixture**

Classification under CLP: Skin Irritant 2: H315  
Skin Sensitiser 1: H317  
Eye Irritant 2: H319  
Aquatic Chronic 2: H411

**2.2 Label Elements (In compliance with EC Regulation No. 1272/2008 (CLP), as amended)**

Hazard pictograms:



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Signal word:

Warning

**H-Statements**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life without long lasting effects.

**Precautionary-Statements**

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves and eye/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice.
P501	Dispose of contents/container in accordance with national regulations.

**2.3 Other hazards**

Further hazards were not determined with the current level of knowledge.

**Section 3: Composition/information on ingredients****Product type:**

This product is a mixture.

CAS No.	EEC No.	Substance Name	Classification*	Range (%)
1134078-27-5	-	Maleic-itaconic copolymer, mixed sodium, copper, zinc, and manganese salt	-	20-40
7733-02-0	231-793-3	Zinc sulphate	Acute Tox. 4: H302 Eye Dam. 1: H318 Aquatic Acute 1: H400 Aquatic Chronic 1: H410	< 10
7785-87-7	232-089-9	Manganese sulphate	STOT RE 2: H373 Aquatic Chronic 2: H411	< 5
110-16-7	203-742-5	Maleic acid	Acute Tox. 4: H302 Skin Irrit. 2: H315 Skin Sens. 1: H317 Eye Irrit. 2: H319 STOT SE 3: H335	< 1

\*For full text of H statements see Section 16

**Section 4: First Aid Measures****4.1 Description of first aid measures**

<b>Inhalation:</b>	Remove casualty from exposure ensuring one's own safety whilst doing so. Ensure supply of fresh air. Consult a doctor.
<b>Skin contact:</b>	Remove all contaminated clothes and footwear immediately unless stuck to the skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Consult a doctor.
<b>Eye contact:</b>	Remove contact lenses, if present and easy to do so. Bathe the eye with running water for 15 minutes. Consult a doctor.
<b>Ingestion:</b>	Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Consult a doctor.

**4.2 Most important symptoms and effects, both acute and delayed**

<b>Inhalation:</b>	There may be irritation of the throat with a feeling of tightness in the chest.
<b>Skin contact:</b>	There may be irritation and redness at the site of contact.
<b>Eye contact:</b>	There may be irritation and redness. The eyes may water profusely.
<b>Ingestion:</b>	There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.
<b>Delayed/immediate effects:</b>	Immediate effects can be expected after short-term exposure.

**4.3 Indication of any immediate medical attention and treatment needed**

**Immediate/special treatment:** Not applicable. Treat symptomatically.

**Section 5: Firefighting Measures****5.1 Extinguishing media**

<b>Suitable:</b>	Foam, dry powder, water spray jet, carbon dioxide.
<b>Unsuitable:</b>	Full water jet.

**5.2 Special hazards arising from the substance or mixture**

<b>Exposure hazards:</b>	Risk of formation of toxic pyrolysis products: Carbon monoxide (CO), Phosphorous oxides (POx), Nitrogen oxides (NOx).
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**5.3 Advice for firefighters**

Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin or eyes. Fire residues and contaminated firefighting water must be disposed of in accordance with local regulations.

**Section 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** Refer to Section 8 of the SDS. If outside do not approach from downwind and keep bystanders away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to

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prevent escape of liquid. High risk of slipping due to leakage/spillage of product. Use personal protective equipment.

#### 6.2 Environmental Precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding to prevent spread over a wide area.

#### 6.3 Methods for cleaning up

**Clean-up procedures:** Absorb into an absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth). Transfer to a closeable, labelled salvage container for disposal in accordance with local regulations.

#### 6.4 Reference to other sections

**Reference to other sections:** Refer to Section 8 of the SDS.

### Section 7: Handling and Storage

#### 7.1 Precautions for safe handling

**Handling:** The normal safety precautions for handling chemicals must be observed. Avoid direct contact with the substance. Use only in well ventilated areas. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Use skin barrier cream.

#### 7.2 Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in cool, dry, well ventilated area. Keep container tightly closed. Do not store together with animal feed/diet. Protect from frost. The floor of the storage area must be impermeable to prevent the escape of liquids.

**Suitable packaging:** Must only be kept in original packaging.

#### 7.3 Specific end use(s)

**Specific end use:** See product use, Section 1.2.

### Section 8: Exposure controls/personal protection

#### 8.1 Control parameters

**Workplace exposure limits:** Contains < 5 % Propylene Glycol (CAS No. 57-55-6). Propylene Glycol has a long-term workplace exposure limit of 150 ppm/474 mg.m<sup>-3</sup> for total vapour and particulates and 10 mg.m<sup>-3</sup> for particulates.

**DNEL/PNEC:** No data available.

#### 8.2 Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Environmental:** Comply with applicable environmental regulations limiting discharge to air, water and soil. Prevent from entering public sewers.

**Hand protection:** Use impermeable gloves.

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**Eye protection:** Safety glasses. Ensure eye bath is to hand.  
**Skin protection:** Impermeable protective clothing.  
**Respiratory protection:** Use self-contained breathing apparatus in the event of aerosol or mist formation.  
**Thermal hazards:** Not applicable.

**Section 9: Physical and Chemical Properties****9.1 Information on basic physical and chemical properties**

<b>Form/state</b>	Liquid	<b>Explosion limit</b>	No data available
<b>Colour</b>	Yellow to brown	<b>Vapour pressure</b>	No data available
<b>Odour</b>	Characteristic light odour	<b>Vapour density</b>	No data available
<b>Odour threshold</b>	No data available	<b>Relative density</b>	No data available
<b>pH</b>	4.0 – 5.0	<b>Solubility in water</b>	Miscible
<b>Melting point</b>	No data available	<b>Part. Coeff. N-octanol/water</b>	No data available
<b>Freezing point</b>	No data available	<b>Auto-ignition temperature</b>	No data available
<b>Initial boiling point</b>	No data available	<b>Decomposition temperature</b>	No data available
<b>Boiling range</b>	No data available	<b>Viscosity</b>	No data available
<b>Flash point</b>	No data available	<b>Explosive properties</b>	No data available
<b>Evaporation rate</b>	No data available	<b>Oxidizing properties</b>	No data available
<b>Flammability</b>	No data available	<b>Specific Gravity</b>	1.3-1.4

**9.2 Other information**

**Other information:** No data available.

**Section 10: Stability and Reactivity****10.1 Reactivity**

**Reactivity:** No dangerous reactions known if used as directed.

**10.2 Chemical stability**

**Chemical stability:** Stable under normal ambient conditions.

**10.3 Possibility of hazardous reactions**

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.

**10.4 Conditions to avoid**

**Conditions to avoid:** Incompatible materials

**10.5 Incompatible materials**

**Materials to avoid:** Strong oxidising agents, strong reducing agents, materials incompatible with water, sodium salts, zinc salts, manganese salts, copper salts and sulfates.

**10.6 Hazardous decomposition products**

**Decomp. Products:** May emit toxic fumes under fire conditions - contains zinc, manganese and copper in salt form

**Section 11: Toxicological Information****11.1 Acute toxicity**

Acute Toxicity	Oral LD <sub>50</sub> > 2000 mg/kg
Eye damage/irritation:	Eye Irritant 2
Skin corrosion/irritation:	Skin Irritant 2
Respiratory or Skin sensitisation:	Skin Sensitiser 1
STOT (single exposure):	Not determined
STOT (repeated):	Not determined
Germ cell mutagenicity:	Not determined
Carcinogenicity:	Not determined
Reproductive and lactation toxicity:	Not determined
Aspiration hazard:	Not determined

**General remarks**

May cause respiratory tract irritation.

The product was classified on the basis of the calculation procedure of the CLP Regulation.

Toxicological data of complete product are not available.

**Section 12: Ecological Information****12.1 Toxicity****General remarks**

The product was classified on the basis of the calculation procedure of the CLP Regulation. Ecological data of complete product are not available.

**12.2 Persistence and degradability**

**Persistence/biodegradability:** No data available.

**12.3 Bio accumulative potential**

**Bioaccumulative potential:** No data available.

**12.4 Mobility in soil**

**Mobility:** No data available.

**12.5 Results of PBT and vPvB assessment**

**PBT identification:** This product has not been evaluated for PBT/vPvB characteristics.

**12.6 Other adverse effects**

Ecological data of complete product are not available. Based on the calculation procedure of the CLP Regulation the following classification has been assigned.

Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects.

### **Section 13: Disposal Considerations**

#### **13.1 Waste treatment methods**

**Disposal procedure:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**Recovery operations:** Not applicable.

**Disposal of packaging:** Dispose of as normal industrial waste at an approved site.

**N.B.:** The users attention is drawn to the possible existence of regional or national regulations regarding disposal.

### **Section 14: Transport Information**

#### **14.1 UN Number**

**UN number:** UN 3082

#### **14.2 UN proper shipping name**

**Shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(contains Copper Sulfate)

#### **14.3 Transport hazard classes**

**Transport class:** 9

#### **14.4 Packing group**

**Packing group:** III

#### **14.5 Environmental hazards**

**Environmentally hazardous:** Yes

#### **14.6 Special precautions for user**

**Special precautions:** No special precautions. See relevant information in Sections 6 to 8.

### **Section 15: Regulatory Information**

#### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Specific regulations:** Not applicable.

#### **15.2 Chemical Safety Assessment**

A chemical safety assessment has not been carried out for the substances in this mixture.

### **Section 16: Other Information**

Phrases in Sections 2-3:

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

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- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects
- H411 Toxic to aquatic life with long lasting effects.

Other information:

This safety data sheet is prepared in accordance with Regulation (EC) No. 1907/2006 (REACH) and 1272/2008 (CLP) as amended in each case.

Abbreviations:

CLP: Classification, Labelling and Packaging.  
DNEL: Derived No Effect Level.  
LD50: Median lethal dose.  
PBT: Persistent, Bioaccumulative and Toxic substance.  
PNEC: Predicted No-Effect Concentration.  
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals.  
vPvB: Very Persistent and very Bioaccumulative.

Legal disclaimer:

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