## SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### Product identifier:

**Identification as on the label/Trade name:**

**Additional information:** Product code.

### Relevant identification uses of the substance and uses advised against:

**Identified uses:** Fertiliser.

**Uses advised against:** Use only as directed.

### Details of the supplier of the Safety Data Sheet:

Company Name: VitaLarch (Pty) Ltd.
Address: 36 Valley Crescent, Highveld, Centurion, 0157
Phone Number: 082 828 0088

## SECTION 2. HAZARD IDENTIFICATION

### Classification of the substances or mixture

**The mixture is classified according to**

| **SANS 10234:2008, Regulation EC 1272/2008 [EU-GHS/CLP]** | |
|---|---|
| **Hazard classes/Hazard categories** | **Hazard statement** |
| Not classified as hazardous under GHS | |

*For full text of H statements see section 16*

### The most important adverse effects

**The most important adverse physiochemical effects:** None.

**The most important adverse human health effects:** Harmful if swallowed.

### Label elements

**Hazard Pictograms:** None.

**Signal Word:** None.

**Hazard Statements**: None.

**Precautionary Statements:** P264 Wash hands thoroughly after handling. P270 Do not eat, drink or smoke when using this product.

**Special labelling of certain mixtures:** None.
**Other hazards:** None.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/Mixture:** Mixture
**Ingredients:**

PRODUCT NOT CLASSIFIED AS HAZARDOUS UNDER GHS.
*For the full text of H statements see section 16*

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.
Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4. FIRST-AID MEASURES

### Description of first aid measures:

**In case of inhalation**:
If inhaled, remove to fresh air. If not breathing, give artificial breathing. If breathing is difficult, give oxygen. Get medical attention if you feel unwell.

**In case of skin contact:**
In case of contact, wash the skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. If irritation persists, visit a doctor.

**In case of eye contact:**
Check for and remove any contact lenses. In case of contact, immediately flush your eyes with plenty of water for at least 15 minutes. Cold water may be used. If irritation persists, visit a doctor.

**In case of ingestion:**
Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Drink plenty of fluids. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if feeling unwell or unsure.

### Most important symptoms and effects, both acute and delayed:

**Inhalation:** May be irritating to the respiratory tract.
**Ingestions:** Harmful if swallowed.
**Skin contact:** May be irritating if in contact with the skin.
**Eye contact:** May be irritating to the eye.

### First aid comments:

If exposed or concerned, see a doctor for medical advice.

## SECTION 5. FIRE-FIGHTING MEASURE

### Extinguisher media:

**Suitable extinguisher media**: Carbon dioxide, dry chemical powder, appropriate foam, water spray.
**SMALL FIRE**: See above.
**LARGE FIRE:** See above.
**Unsuitable extinguishing media:** Do not use high volume water jet, due to contamination risk.

### Specific hazards arising from the mixture:

Can ignite if strongly heated. Formation of toxic gasses is possible during heating or in case of fire. In the case of fire, carbon oxides (CO, $CO_2$) can be released.

### Specific extinguishing methods:

Remove spectators from the surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from a maximum distance and use an unmanned hose holder or monitor nozzles. Keep upwind. Avoid inhaling hazardous vapours and fumes from burning materials. Remove the container from the fire area if possible and without risk. Do not use high-volume water jets, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site.

### Advice for fire-fighters:

Wear NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

## SECTION 6. ACCIDENTAL RELEASE

### Personal precautions, protective equipment and emergency procedures:

**For non-emergency personnel:**
Keep all personal and avoid contact.

**For emergency responders:**
Wear appropriate personal protective equipment. Avoid contact and ventilate the area of the spill or leakage.

**Protective equipment:**
Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill.

**Emergency procedures:**
Alert fire-fighting personnel, and evacuate unprotected personnel and animals.

### Environmental precautions:

Prevent spilt products from entering sewers, waterways or groundwater. Any spillages or uncontrolled discharges into watercourses should be reported immediately to the police and the Department of Water/Environmental Affairs.

### Methods and materials for containment and cleaning up:

**Material for containment and cleaning up:**
Isolate the hazard area and deny entry. Stay upwind, out of low-lying areas, and ventilate closed spaces before entering. Stop or reduce leaks if safe to do so. Cover the spill with absorbent material. Sweep into a disposal container. Avoid generating dust. Wash the area with detergent and water and follow with a clean water rinse.
Label the containers with the contents and dispose of them according to local regulations. Do not place spilt material back in the original container. Do not reuse spilt material. Collect washings and add to the drums already collected. Do not flush spilt material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations.

**For small spills** Clean and place in appropriate waste disposal container. Follow local and regional authority requirements.
**For large spills** Clean and place in appropriate waste disposal container. Follow local and regional authority requirements.

### Reference to other sections:

See section 7 for information on safe handling.
See section 8 for information on personal protection equipment.
See section 13 for information on disposal.

### Additional information:

None.

## SECTION 7. HANDLING AND STORAGE

### Precautions for safe handling:

Do not handle broken packages without proper equipment. Immediately clean up spills that occur during handling. Keep containers tightly closed when not in use. Use with adequate ventilation. Avoid contact with skin and eyes. Do not inhale. Use suitable respiratory equipment. Wash hands and skin with soap after contact. Keep away from oxidizing agents and acids.

### Protective measures:

Observe directions on the label and instructions for use. Advice on general occupational hygiene: practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet, or applying cosmetics. Workers should shower at the end of each workday. Launder all clothing before it is re-used. Do not eat, drink or smoke when handling this product.

### Conditions for safe storage, including incompatibilities:

Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in the original labelled container, tightly closed, in an isolated, cool, dark and well-ventilated area. Store at room temperature above 4°C and a humidity range of 40-60%. Prevent moisture and keep away from sun rays. Store products in a segregated and approved area.

### Incompatible substances:

Store away from incompatible materials, heat, sun and source of ignition. Keep away from oxidizing agents and spontaneously flammable products.

## SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Control parameters:

**Occupational exposure limits (OEL):** None known

**Biological exposure indices (BEI):** None known.

**Additional exposure limits under the conditions of use:** None known.

### Exposure control:

**Appropriate engineering controls:**
Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Where there is possibility that an employee's eyes may be exposed to this substance; the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

**Respiratory protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152,

January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government-approved (where applicable), air-purifying filter, cartridge or canister. Contact a health and safety professional or manufacturer for specific information.

**Hand protection:**
It is a good industrial hygiene practice to prevent skin contact. Use rubber gloves.

**Eye/face protection:**
Risk of contact: Wear approved safety goggles. Contact lenses are not protective eye devices.

**Skin and body protection:**
Employees must wear appropriate proactive impervious clothing: rubber boots, hat and equipment to prevent repeated or prolonged skin contact when working with chemicals. Do not wear leather clothing. Aprons and long sleeves are recommended.

**Environmental exposure controls:**
Environmental managers must be informed of all major spillages.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

| | |
|---|---|
| **Appearance (form):** | Fine powder |
| **Colour:** | White, light grey or pale cream |
| **Odour:** | Specific, peculiar to product |
| **pH:** | Not applicable |
| **Melting point/range (ºC**): | Over 210°C |
| **Boiling point/range (ºC):** | No data available |
| **Flashpoint (ºC):** | Over 260°C |
| **Upper/lower flammability/ explosive limits:** | No data available |
| **Vapour pressure (ºC):** | No data available |
| **Vapour density:** | No data available |
| **Density/ relative density:** | No data available |
| **Solubility(ies):** | In water: soluble |
| **n-Octanol/Water partition coefficient:** | No data available |
| **Auto-ignition temperature:** | No data available |
| **Decomposition temperature:** | No data available |

### Physical hazards:

| | |
|---|---|
| **Explosive properties**: | No data available |
| **Oxidising properties**: | No data available |

### Other information:

**Fat solubility (solvent-oil to be specified):** No data available
**Bulk density:** No data available
**Dissociation constant in water (p Ka):** No data available
**Oxidation-reduction potential:** No data available

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity:
The product is stable under normal warehouse conditions.

### Chemical stability:
Stable under recommended storage conditions.

### Possibility of hazardous reactions:
None under normal conditions.

### Conditions to avoid:
High temperature. Poor ventilation. Contamination. Moisture/high humidity. Light.

### Incompatible materials:
Store away from incompatible materials, heat, sun and source of ignition. Keep away from oxidizing agents.

### Hazardous decomposition products:
Formation of toxic gasses is possible during heating or in case of fire. In the case of fire, carbon oxides (CO, CO2) can be released.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects:

| | |
|---|---|
| **Acute toxicity** | |
| Acute Oral $LD_{50}$ (rat) | 7667±345 mg/kg |
| Acute Dermal $LD_{50}$ (rats): | >5000 mg/kg |
| Acute Inhalation $LD_{50}$ (5% aqueous solution) (rats) | >6465 mg/m$^3$ |
| Skin irritation/ corrosion (rabbits) | No data available |
| Eye damage / irritation (rabbits) | No data available |
| Respiratory or skin sensitization | No data available |
| Germ cell mutagenicity | No data available |
| Carcinogenicity | No data available |
| Reproductive toxicity | No data available |
| Specific Target Organ Toxicity STOT single exposure | No data available |
| Specific Target Organ Toxicity STOT repeated exposure | No data available |
| Aspiration hazard | No data available |

## SECTION 12. ECOLOGICAL INFORMATION

**Anticipated behaviour of the chemical product in the environment /possible environmental impact/ecotoxicity:**

| | |
|---|---|
| **Acute toxicity** | |
| Birds:<br>$LD_{50}$ for bobwhite quail and mallard ducks<br>Dietary $LC_{50}$ (8 d) for bobwhite quail and mallard ducks | No data available |
| Fish:<br>$LC_{50}$ (96 h) for rainbow trout >73<br>$LC_{50}$ (96 h) for carp<br>$LC_{50}$ (96 h) for bluegill sunfish<br>$LC_{50}$ (96 h) for catfish | No data available |
| Daphnia – toxic to Daphnia<br>$EC_{50}$ (48 h) | No data available |
| Algae<br>$EC_{50}$ (72 h) for green algae | No data available |
| Bees:<br>$LC_{50}$ (oral)<br>$LD_{50}$ (topical) | No data available |
| Worms<br>Acute $LC_{50}$ (14 d) | No data available |

**Persistence and degradability:** No data available
**Bioaccumulative potential:** No data available
**Mobility in soil** No data available
**Other adverse effects:** No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods:**
**General Information:** Do not discharge into drains, water courses or onto the ground. Discharge, treatment or disposal may be subject to national, state, or local laws. Empty containers may contain product residues. Open dumping or burning is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.

**Disposal Methods:** Destroy the container by perforating and flattening it and dispose of it through an approved waste dump site, incineration plant or recycling company.

**Container:** Since emptied containers retain product residue, follow label warnings even after the container is emptied. Do not reuse empty containers.

**Product/ packaging disposal:**
Treat as hazardous waste and dispose of it in accordance with municipal, provincial and national regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous water regulatory authority.

## SECTION 14. TRANSPORT INFORMATION

UN Number: Not applicable.
UN Proper Shipping Name: Not applicable.
UN Classification [Transport Hazard Class(es)]: Not applicable.
Packing Group (If Applicable): Not applicable.
Marine Pollutant (Y/N): Not applicable.
Transport in bulk according to MARPOL 73/78, Annex II and the IBC Code: Not applicable.

## SECTION 15. REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation for the mixture:

**Relevant information regarding authorization:** Occupational Health and Safety Act 1993 Regulation for Hazardous Chemical Substances.

**Relevant information regarding restrictions:**
**EU regulations:** Regulation EC 1272/2008 [EU-GHS/CLP] and EU directives 67/548/EEC or EC 1999/45/EC
**Other National regulations:** National Road Traffic Act, 1996 (ACT NO. 93 of 1996).
SANS 11014:2010 – Safety data sheet for chemical products, Content and order section.
SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.
National Environmental Management: Waste Act 59 of 2008.

**Chemical Safety Assessment carried out?** No.

## SECTION 16. OTHER INFORMATION

### Indication of changes:
GHS aligned

### Relevant classification and H statements (number and full text):
**NOT CLASSIFIED AS HAZARDOUS ACCORDING TO GHS.**

### Training instructions:
Use as indicated on the label, special training may be required for application.

### Further information:
This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

### Notice to readers:
To the best of our knowledge, the information contained herein is accurate and is based on the present state of our knowledge and does not therefore guarantee specific properties. However, neither the above-named supplier nor any of its subsidiaries assumes any liability whatsoever for any accuracy or completeness of the information contained herein.
Final determinations of suitability of any material are sole responsibility of the users, who must take responsibility for observing existing laws and regulations. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.