Safety Data Sheet

Material: **Landscape Lock – Outdoor Garden Adhesive**

Version: 1.4 (AU)

Date of last alteration: 26.02.2025

1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Commercial product name: **Landscape Lock Concentrate**

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

Use of substance / preparation: Industrial and Domestic

Binder for: Garden Much and pebbles

Adhesive
Sealant
Building and construction binders

All other areas of application to be agreed with the Application Engineering/ Technical Marketing Department of the manufacturer.

1.3 Details of the supplier of the safety data sheet

Packaged by:	TerraShield Pty Ltd
Street No.:	36 Boron Street
State/postal code/city:	Sumner Park, QLD, 4074
Telephone:	+61 7 3279 2554
Email:	admin@landscapelock.com.au
Web site:	www.landscapelock.com.au
Emergency telephone number	+61 7 3279 2554

2 Hazards identification

· **Classification of the substance or mixture:**

Skin Sens. 1	H317 May cause an allergic skin reaction.
Aquatic Acute 3	H402 Harmful to aquatic life.
Aquatic Chronic 3	H412 Harmful to aquatic life with long lasting effects.

· **Label elements:**
· **Hazard pictograms:**

GHS07

· **Signal word:** Warning
· **Hazard statements:**
May cause an allergic skin reaction.
Harmful to aquatic life with long lasting effects.
· **Precautionary statements:**
Avoid breathing dust/fume/gas/mist/vapours/spray.
Avoid release to the environment.
Wear protective gloves.
If skin irritation or rash occurs: Get medical advice/attention.
Specific treatment (see on this label).
Dispose of contents/container in accordance with local/regional/national/international regulations.

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· **Other hazard:** None known.

3 Composition/information on ingredients

· **Chemical characterisation: Mixtures**
· **Description:** Mixture: consisting of the following components.

· **Dangerous Components:**		
55965-84-9	3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330; Skin Corr. 1C, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); Skin Sens. 1A, H317	≤ 0.0050%
2682-20-4	2-methyl-2H-isothiazol-3-one Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1); Skin Sens. 1A, H317	≤ 0.0050%
2634-33-5	1,2-benzisothiazol-3(2H)-one Acute Tox. 1, H330; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317	≤ 0.0080%
108-05-4	vinyl acetate Flam. Liq. 2, H225; Carc. 2, H351; Acute Tox. 4, H332; STOT SE 3, H335; Acute Tox. 5, H303; Aquatic Acute 3, H402; Aquatic Chronic 3, H412	≤ 0.1%

· **Non-Hazardous Component(s):**

Substance Name:	CAS NO:	
Vinyl acetate-ethylene copolymer	24937-78-8	≥55%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

· **Description of first aid measures**
· **General information:**
First aider needs to protect himself.
Immediately remove any clothing soiled by the product.
· **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:**
Rinse cautiously with water for several minutes.
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
· **After eye contact:**
Rinse opened eye for 15 minutes under running water. If symptom persists consult a doctor.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting unless directed to do so by medical personnel.
Do not induce vomiting; call for medical help immediately.
· **Most important symptoms and effects, both acute and delayed:**
Allergic reactions
Inflammation, skin redness, allergies, and/or dermatitis
· **Indication of any immediate medical attention and special treatment needed**
Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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5 Firefighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
This product is non-flammable under normal circumstances. Dried-up substance, however, is combustible. CO2, powder, foam, water, or water spray can be used to extinguish fire. Water jet can also be used in scenario of non-liquid combustion.
Use fire extinguishing methods suitable to surrounding conditions.
· **For safety reasons unsuitable extinguishing agents:** None
· **Special hazards arising from the substance or mixture**
Combustion of dried-up substance will release carbon oxides (CO, CO_2).
· **Advice for firefighters**
· **Protective equipment:**
Wear protective fire fighting clothing (including fire fighting helmet, coat, trousers, boots, and gloves).
If necessary, wear fully protective suit and air respirator.
Wear self-contained respiratory protective device.
Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves).
· **Additional information**
Cool endangered receptacles with water spray.
Avoid contact with skin, eye, and clothing.
Do not inhale explosion gases or combustion gases.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
If possible, stop flow of product.
Ensure adequate ventilation
· **Environmental precautions:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Harmful to aquatic organisms
· **Methods and material for containment and cleaning up:**
Collect, bind, and pump off spills.
Allow to solidify. Pick up mechanically.
For large liquid spills (>1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
· **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 disposal information.

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Wear protective gloves/protective clothing/eye protection/face protection.
Do not get in eyes, on skin, or on clothing.
Ensure good ventilation/exhaustion at the workplace.
Use personal protective equipment as required.
· **Information about fire - and explosion protection:** The product is not flammable.

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· **Storage:**
· **Conditions for safe storage, including any incompatibilities**
Store in a cool location.
Store in cool, dry place in tightly closed receptacles.
· **Further information about storage conditions:** Store at 5 °C to 40 °C

8 Exposure controls/personal protection

· **Additional information about design of technical facilities:**
If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.
Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines.
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

· **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
55965-84-9 3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	
OELV (Korea)	Long-term value: 0.1 mg/m³ 흡입성

· **Ingredients with biological limit values:**
The product does not contain any relevant quantities of materials with biological limited values that have to be monitored.

· **Personal protective equipment:**
· **General protective and hygienic measures:**
Do not eat, drink, smoke or sniff while working.
The usual precautionary measures are to be adhered to when handling chemicals.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Be sure to clean skin thoroughly after work and before breaks.
Ensure that washing facilities are available at the work place.
· **Respiratory protection:**
Not necessary if room is well-ventilated.
Short term filter device:
Filter A/P2
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**

Protective gloves

The selected protective gloves have to satisfy the specifications of standard EN 374 or its equivalent.
Replace gloves immediately when torn or any change in appearance (dimension, colour, flexibility etc) is noticed.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
Plastic gloves
Rubber gloves
Natural rubber, NR
Butyl rubber, BR

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Nitrile rubber, NBR
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Safety glasses with side shields conforming to EN166, ANSI 87.1-2010, or equivalent.

· **Body protection:**
Protective work clothing
The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Liquid Emulsion
Colour:	Whitish
· **Odour:**	faint
· **Odour threshold:**	Not determined.
· **pH-value:**	4.5-6.5
· **Melting point/freezing point:**	Undetermined.
· **Initial boiling point and boiling range:**	Undetermined.
· **Flash point:**	Not applicable - Not flammable/Noncombustible
· **Evaporation rate**	Not applicable.
· **Flammability (solid, gas):**	Not determined.
· **Auto-ignition temperature:**	Not determined
· **Decomposition temperature:**	Not determined.
· **Ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapour pressure:**	Not applicable.
· **Density:**	1.07 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not applicable.
· **Evaporation rate**	Not applicable.
· **Solubility in / Miscibility with water:**	Fully miscible.
· **Partition coefficient: n-octanol/water:**	Not determined.
· **Viscosity:**	1500-2500 cP
Dynamic:	Not applicable.
Kinematic:	Not applicable.

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Trade name: Vinyl Acetate-Ethylene Copolymer Emulsion (VAE)

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Organic solvents: ≤0.1 %

10 Stability and reactivity

· **Reactivity:** When properly handled and stored, no dangerous reaction is known.
· **Chemical stability:** This product is stable under prescribed use and storage.
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **Possibility of hazardous reactions:** No dangerous reactions known.
· **Conditions to avoid:** Protect from heat. Keep ignition sources away.
· **Incompatible materials:** Strong oxidizing agents
· **Hazardous decomposition products:**
Carbon monoxide (CO) and carbon dioxide (CO_2)
Decomposition products depend upon temperature, air supply and the presence of other materials.

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity** Not classified based on available data.

· **LD/LC50 values relevant for classification:**		
55965-84-9 3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone		
Oral	LD50	200 mg/kg (rat)
Dermal	LD50	>141 mg/kg (rat)
Inhalative	LC50/4 h	0.33 mg/l (rat) (dusts and mists)
2682-20-4 2-methyl-2H-isothiazol-3-one		
Oral	LD50	120 mg/kg (rat)
Dermal	LD50	242 mg/kg (rat)
Inhalative	LC50/4 h	0.11 mg/l (rat)
2634-33-5 1,2-benzisothiazol-3(2H)-one		
Oral	LD50	450 mg/kg (rat) (OECD 401)
Inhalative	LC50/4 h	0.21 mg/l (rat) (OECD 403)
108-05-4 vinyl acetate		
Oral	LD50	3,470 mg/kg (rat)
Dermal	LD50	7,440 mg/kg (rabbit)
Inhalative	LC50/4 h	15.8 mg/l (rat)
	LC50/4h	4,490 ppm (rat)

· **Skin corrosion/irritation:** Not classified based on available data.
· **Serious eye damage/eye irritation:** Not classified based on available data.
· **Respiratory or skin sensitization:**
May cause an allergic skin reaction.
Guinea Pigs: Sensitizing to the skin (OECD 429)
· **Germ Cell Mutagenicity:** Not classified based on available data.
· **Carcinogenicity:** Not classified based on available data.
· **Reproductive Toxicity:** Not classified based on available data.
· **Specific Target Organ Toxicity - Single Exposure (STOT SE):** Not classified based on available data.
· **Specific Target Organ Toxicity - Repeated Exposure (STOT RE):**
Not classified based on available data.
· **Aspiration Hazard:**
Not classified due to lack of data.
Based on physical properties, not likely to be an aspiration hazard.

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· **Primary irritant effect:**
· **Skin corrosion/irritation** No irritating effect.
· **Serious eye damage/irritation** No irritating effect.
· **Respiratory or skin sensitisation** Sensitisation possible through skin contact.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:**
Harmful to aquatic life with long lasting effects.
Harmful to aquatic life.
No data currently available for the mixture product itself. Available data for the individual component(s) is listed below:

55965-84-9 3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	
EC50/48h	0.16 mg/l (daphnia)
EC50/72h	0.0199 mg/l (algae)
LC50/96h	0.19 mg/l (fish)
NOEC	0.00049 mg/l (algae) (48h)
	0.1 mg/l (daphnia) (21d)
	0.02 mg/l (fish) (36d)
2682-20-4 2-methyl-2H-isothiazol-3-one	
EC50/48h	0.85 mg/l (daphnia)
EC50/72h	0.0689 mg/l (algae)
LC50/96h	4.77 mg/l (fish)
NOEC	0.0358 mg/l (algae) (72h)
	0.044 mg/l (daphnia) (21d)
	2.1 mg/l (fish) (33d)
2634-33-5 1,2-benzisothiazol-3(2H)-one	
EC50/48h	2.9 mg/l (daphnia) (OECD 202)
EC50/72h	0.11 mg/l (algae) (OECD 201)
LC50/96h	2.15 mg/l (fish) (OECD 203)
NOEC	0.0403 mg/l (algae) (72h; OECD 201)
108-05-4 vinyl acetate	
EC50/48h	12.6 mg/l (daphnia)
EC50/72h	12.7 mg/l (algae)
NOEC	0.16 mg/l (fish)

· **Persistence and degradability**
No data currently available for the mixture product itself. Available data for the individual component(s) is listed below:
●Data for Component: 2-methyl-2H-isothiazol-3-one (CAS No.: 2682-20-4)
Degradation: 54.1% (29d; OECD 301B)
Biodegradation in water: readily biodegradable
●Data for Component: Reaction mass of 2-methyl-2H-isothiazol-3-one and 5-chloro-2-methyl-2H-isothiazol-3-one (CAS No.: 55965-84-9)
Degradation: 38.8% (29d; OECD 301B)
Biodegradation in water: inherently biodegradable
●Data for Component: 1,2-benzisothiazol-3(2H)-one (CAS No.: 2634-33-5)
Degradation: 62% (4d; OECD 301C)
Biodegradation in water: readily biodegradable

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●Data for Component: Vinyl acetate (CAS No.: 108-05-4)
Degradation: 82~98% (14d; OECD 301C)
Biodegradation in water: readily biodegradable

· **Bioaccumulative potential**
No data currently available for the mixture product itself. Available data for the individual component(s) is listed below:
●Data for Component: 2-methyl-2H-isothiazol-3-one (CAS No.: 2682-20-4)
Bioconcentration Factor (BCF): 5.75
Bioaccumulation potential is low.
●Data for Component: Reaction mass of 2-methyl-2H-isothiazol-3-one and 5-chloro-2-methyl-2H-isothiazol-3-one (CAS No.: 55965-84-9)
Bioconcentration Factor (BCF): 54
Bioaccumulation potential is low.
●Data for Component: 1,2-benzisothiazol-3(2H)-one (CAS No.: 2634-33-5)
Bioconcentration Factor (BCF): 6.62
Bioaccumulation potential is low.
●Data for Component: Vinyl acetate (CAS No.: 108-05-4)
Bioconcentration Factor (BCF): 3.16
Bioaccumulation potential is low.

· **Mobility in soil**
No data currently available for the mixture product itself. Available data for the individual component(s) is listed below:
●Data for Component: 2-methyl-2H-isothiazol-3-one (CAS No.: 2682-20-4)
Partition coefficient, organic carbon/water (Koc): 7.7
Henry's Law Constant (H): <4.39*10E-5 Pa m³/mol @25°C
Mobility class: Very highly mobile (Koc between 0 and 50, McCall et al.'s classification scheme)
●Data for Component: Reaction mass of 2-methyl-2H-isothiazol-3-one and 5-chloro-2-methyl-2H-isothiazol-3-one (CAS No.: 55965-84-9)
Partition coefficient, organic carbon/water (Koc): 7.7
Henry's Law Constant (H): 0.005 Pa m³/mol @25°C
Mobility class: Very highly mobile (Koc between 0 and 50, McCall et al.'s classification scheme)
●Data for Component: 1,2-benzisothiazol-3(2H)-one (CAS No.: 2634-33-5)
Partition coefficient, organic carbon/water (Koc): 9.33 @20°C
Mobility class: Very highly mobile (Koc between 0 and 50, McCall et al.'s classification scheme)
●Data for Component: Vinyl acetate (CAS No.: 108-05-4)
Partition coefficient, organic carbon/water (Koc): 24.21 L/kg @20°C
Henry's Law Constant (H): 56.1 Pa m³/mol @20°C
Mobility class: Very highly mobile (Koc between 0 and 50, McCall et al.'s classification scheme)

· **Ecotoxical effects:**
· **Remark:** Harmful to fish
· **Additional ecological information:**
· **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Harmful to aquatic organisms

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation**
On the basis of the necessary technical regulations and after consultation with the disposal agent and the relevant authorities, can be disposed of with domestic waste or incinerated with domestic waste.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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Any disposal method should also comply with national, regional, provincial, and local laws.

· **Uncleaned packaging:**
· **Recommendation:**
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
Disposal must be made according to official regulations.

14 Transport information

· **Dangerous Goods classification Status:** Not classified as a dangerous good with respect to transport regulations (IMDG, IATA, ADN, ADR, US DOT).

· **UN-Number**
· **ADR, ADN, IMDG, IATA** None (Not a Dangerous Good)

· **UN proper shipping name**
· **ADR, ADN, IMDG, IATA** None (Not a Dangerous Good)

· **Transport hazard class(es)**

· **ADR, ADN, IMDG, IATA**
· **Class** None (Not a Dangerous Good)

· **Packing group**
· **ADR, IMDG, IATA** None (Not a Dangerous Good)

· **Environmental hazards:**
· **Marine pollutant:** No
· **Special precautions for user** Not applicable.
· **UN "Model Regulation":** None (Not a Dangerous Good)

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

16 Other information

· **Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European LIst of Notified Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 5: Acute toxicity – Category 5
Acute Tox. 2: Acute toxicity – Category 2
Acute Tox. 1: Acute toxicity – Category 1
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Corr. 1C: Skin corrosion/irritation – Category 1C
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· **Sources**

External (M)SDS
Most toxicological and eco-toxicological data are obtained from European Chemical Agency (ECHA)'s public dissemination website.

· **General Disclaimers:**

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