

Safety Data Sheet

PS1

Prepared in accordance with Annex II of the REACH Regulation EC 1907/2006,

Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Revision date: June 2019

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1 Product identifier

Substance name: PS1
Synonyms: Waterglass, Mineral primer, penetrating solution, Silicic acid, potassium salt, water

Main chemical name and formula: Potassium Silicate - K_2O_3Si
Trade name: PS1, PS, Mineral Primer, Penetrating Solution, Silic8®, Silic8™
CAS: 1312-76-1
EINECS: 215-199-1
Molecular Weight: Not determined

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

Use of the substance: The substance is intended for the following non-exhaustive list of uses: Building material industry, Chemical industry, Civil engineering, Paper and paint industry

1.2.1 Identified uses

Any uses listed are identified uses and not conclusive.

1.2.2 Uses advised against

None identified

1.3 Details of the supplier of the safety data sheet

Name: Lime Green Products Ltd.
Address: Coates Kiln, Stretton Road
Much Wenlock, Shropshire SY6 7EB
Phone N°: +44(0)1952728611
E-mail of competent person(s) responsible for the SDS: enquire@lime-green.co.uk

1.4 Emergency telephone number

European Emergency N°: 112
National centre for Prevention & Treatment of Intoxications N°: National Chemicals Emergency Centre (NCEC) +44 (0) 870 190 6621
Emergency telephone at the company: +44(0)1952728611
Available outside office hours: No

Safety Data Sheet

PS1

Prepared in accordance with Annex II of the REACH Regulation EC 1907/2006,

Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Revision date: June 2019

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance

The product is classified and labelled according to the CLP regulation

2.1.1 Classification according to Regulation (EC) 1272/2008

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.1.2 Classification according to Directive 67/548/EEC

R36/37/38

2.1.3 Additional information

For full text of H-statements and R-phrases: see SECTION 16

2.2 Label elements

2.2.1 Labelling according to Regulation (EC) 1272/2008

Signal word: Warning

Hazard pictogram:



Hazard statements:

H315: Causes skin irritation
H319: Causes serious eye irritation

Precautionary statements:

P102: Keep out of reach of children
P262: Do not get in eyes, on skin or on clothing
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352: IF ON SKIN: Remove all contaminated clothing, Wash with plenty of water/shower
P310: Immediately call a poison centre or doctor/physician
P501: Dispose of contents/container in accordance with local, regional, national and international regulation – use a registered hazardous waste carrier/licence holder, and/or contact the manufacturer.

2.3 Other hazards

The substance does not meet the criteria for PBT or vPvB substance.

No other hazards identified.

Safety Data Sheet

PS1

Prepared in accordance with Annex II of the REACH Regulation EC 1907/2006,

Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Revision date: June 2019

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Main constituent

| CAS number | EC number | Registration No | Identification name | Weight % content (or range) | Classification according to 67/548/EEC |
|------------|-----------|-----------------------|---------------------|-----------------------------|--|
| 1312-76-1 | 215-199-1 | 01-2119456888-17-xxxx | Potassium Silicate | >90% | R36/37/38 |

| CAS number | EC number | Registration No | Identification name | Weight % content (or range) | Classification according to Regulation (EC) No 1272/2008 [CLP] |
|------------|-----------|-----------------------|---------------------|-----------------------------|--|
| 1305-78-8 | 215-138-9 | 01-2119456888-17-xxxx | Potassium Silicate | >90% | <i>Eye Irrit. 2 H319</i> <i>Skin Irrit. 2 H315</i> |

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

No known delayed effects. Consult a physician for all exposures except for minor instances.

Following inhalation

Remove from exposure. Obtain medical attention immediately.

Following skin contact

Carefully and gently wipe the contaminated body surfaces in order to remove all traces of product. Wash affected area immediately with plenty of water. Remove contaminated clothing. If necessary seek medical advice.

Following eye contact

Rinse eyes immediately with plenty of water and seek medical advice.

Following ingestion

Clean mouth with water and drink afterwards plenty of water. Do **NOT** induce vomiting. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

PS1 is not acutely toxic via the oral, dermal, or inhalation route. The substance is classified as irritating to skin and entails a risk of serious eye irritation. There is no concern for adverse systemic effects because local effects (pH-effect) are the major health hazard.

4.3 Indication of any immediate medical attention and special treatment needed

Follow the advises given in section 4.1

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

5.1.1 Suitable extinguishing media

Suitable extinguishing media: The product is not combustible. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Safety Data Sheet

PS1

Prepared in accordance with Annex II of the REACH Regulation EC 1907/2006,

Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Revision date: June 2019

5.1.2 Unsuitable extinguishing media

Not determined

5.2 Special hazards arising from the substance or mixture

The product does not burn

5.3 Advice for fire fighters

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Adhere to personal protection rules (refer to sections 7 and 8)

Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).

6.1.2 For emergency responders

Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).

6.2 Environmental precautions

Avoid uncontrolled spills to watercourses and drains (pH increase). Any large spillage into watercourses must be alerted to the Environment Agency or other regulatory body.

Don't allow product to enter soil, sewage system or any ground water course. Adhere to local governmental rules and regulations. In the case of ground contamination inform the relevant authorities immediately.

6.3 Methods and material for containment and cleaning up

Plug drainage courses.

Absorb with liquid-binding material (Sand, diatomite, acid binders, universal binders, sawdust).

Flush residues with plenty of water.

Dispose of the residue materials according to the regulations.

Thoroughly clear contamination.

6.4 Reference to other sections

For more information on exposure controls/personal protection or disposal considerations, please check section 8 and 13 of this safety data sheet.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures

Avoid contact with skin and eyes. Wear protective equipment (refer to section 8 of this safety data sheet). When handling tins usual precautions should be paid to the risks outlined in the Council Directive 90/269/EEC.

Safety Data Sheet

PS1

Prepared in accordance with Annex II of the REACH Regulation EC 1907/2006,

Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Revision date: June 2019

Keep receptacles tightly sealed. Ensure good ventilation/extraction in the workplace.

7.1.2 Advice on general occupational hygiene

Avoid inhalation or ingestion and contact with skin and eyes. General occupational hygiene measures are required to ensure safe handling of the substance. These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices), no drinking, eating and smoking at the workplace. Shower and change clothes at end of work shift.

7.2 Conditions for safe storage, including any incompatibilities

Keep at room temperature and not exceeding 50 deg. C. Bulk storage should be in purpose designed containers. Keep away from acids, significant quantities of paper, straw, and nitro compounds. Keep out of reach of children. Do not use aluminium or ferrous metals for transport or storage.

Polyethylene is a suitable material for storage and transport.

Do not store in the same place with acids. Store away from metals. Keep container tightly sealed. Protect from frost. Protect from heat and direct sunlight. Storage class 12.

7.3 Specific end use(s)

For more information please see the relevant exposure scenario, available via your supplier and check section 2.1: Control of worker exposure.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing. Avoid contact with the eyes and skin. Do not inhale vapours. Wash hands before breaks and at the end of work.

8.1 Control parameters

DNEL's

| | Workers | | | |
|-------------------|---|------------------------|---|--------------------------|
| Route of exposure | Acute effect local | Acute effects systemic | Chronic effects local | Chronic effects systemic |
| Oral | Not required | | | |
| Inhalation | Not required | | | |
| Dermal | Hazard identified but no DNEL available | No hazard identified | Hazard identified but no DNEL available | No hazard identified |

| | Consumers | | | |
|----------|--------------|---------------|-----------------|-----------------|
| Route of | Acute effect | Acute effects | Chronic effects | Chronic effects |

Safety Data Sheet

PS1

Prepared in accordance with Annex II of the REACH Regulation EC 1907/2006,

Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Revision date: June 2019

| exposure | local | systemic | local | systemic |
|------------|---|----------------------|---|----------------------|
| Oral | No exposure expected | No hazard identified | No exposure expected | No hazard identified |
| Inhalation | No exposure expected | No hazard identified | No exposure expected | No hazard identified |
| Dermal | Hazard identified but no DNEL available | No hazard identified | Hazard identified but no DNEL available | No hazard identified |

PNEC's

| Environment protection target | PNEC | Remarks |
|------------------------------------|----------------------|----------------------------------|
| Fresh water | 7.5 mg / L | |
| Freshwater sediments | No PNEC available | Insufficient data available |
| Marine water | 1 mg / L | |
| Marine sediments | No PNEC available | Insufficient data available |
| Food (bioaccumulation) | No hazard identified | No potential for bioaccumulation |
| Microorganisms in sewage treatment | 348 mg / L | |
| Soil (agricultural) | Not available | |
| Air | No hazard identified | |

8.2 Exposure controls

Appropriate protective equipment is recommended. Eye protection equipment (e.g. goggles or visors) must be worn, unless potential contact with the eye can be excluded by the nature and type of application (i.e. closed process). Additionally, face protection, protective clothing and safety shoes are required to be worn as appropriate.

Do not eat, smoke or drink in the workplace.

Please check the relevant exposure scenario via your supplier.

8.2.1 Appropriate engineering controls

If user operations generate dust, use process enclosures, local exhaust ventilation, or other engineering controls.

Safety Data Sheet

PS1

Prepared in accordance with Annex II of the REACH Regulation EC 1907/2006,

Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Revision date: June 2019

8.2.2 Individual protection measures, such as personal protective equipment

8.2.2.1 Eye/face protection

EN166 eye protective goggles . Eyewash facilities should be readily available.

8.2.2.2 Skin protection

Dermal exposure has to be minimised as far as technically feasible. The use of protective gloves (nitrile - chloroprene rubber - recommended thickness of the material: ≥ 0.5 mm), protective standard working clothes fully covering skin, full length trousers, long sleeved overalls, with close fittings at openings and are required to be worn.

8.2.2.3 Respiratory protection

Local ventilation is recommended. Use suitable respiratory protective device only when vapour or mist is formed.

8.2.2.4 Thermal hazards

The substance does not represent a thermal hazard, thus special consideration is not required.

8.2.3 Environmental exposure controls

All ventilation systems should be filtered before discharge to atmosphere.

Avoid releasing to the environment.

Contain the spillage. Any large spillage into watercourses must be alerted to the regulatory authority responsible for environmental protection or other regulatory body.

For detailed explanations of the risk management measures that adequately control exposure of the environment to the substance please check the relevant exposure scenario, available via your supplier.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|-------------------|---|
| Appearance: | clear aqueous liquid |
| Odour: | odourless |
| Odour threshold: | not applicable |
| pH: | 11.2 |
| Melting point: | Undetermined |
| Boiling point: | 100 °C |
| Flash point: | not applicable |
| Evaporation rate: | not applicable |
| Flammability: | non flammable |
| Explosive limits: | non explosive (void of any chemical structures commonly associated with explosive properties) |
| Vapour pressure: | not applicable |
| Vapour density: | not applicable |
| Relative density: | 1.7 |

Safety Data Sheet

PS1

Prepared in accordance with Annex II of the REACH Regulation EC 1907/2006,

Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Revision date: June 2019

| | |
|----------------------------|--|
| Solubility in water: | Soluble, miscibility carrier |
| Partition coefficient: | not applicable (inorganic substance) |
| Auto ignition temperature: | no relative self-ignition temperature below 400 °C |
| Decomposition temperature: | not applicable |
| Viscosity: | not determined |
| Oxidising properties: | no data available |

9.2 Other information

Not available

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions

10.2 Chemical stability

Under normal conditions of use and storage PS1 is stable.

10.3 Possibility of hazardous reactions

No dangerous reactions known under normal conditions and use.

10.4 Conditions to avoid

None identified

10.5 Incompatible materials

Ferrous metals

10.6 Hazardous decomposition products

Decomposes by reaction with strong acids

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

a. Acute toxicity

Oral May cause irritation of the stomache and intestines, Nausea

Dermal Irritant

Inhalation no data available

PS1 is not acutely toxic.

Classification for acute toxicity is not warranted.

b. Skin corrosion/irritation

Prolonged skin contact may cause irritation.

Safety Data Sheet

PS1

Prepared in accordance with Annex II of the REACH Regulation EC 1907/2006,

Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Revision date: June 2019

c. Serious eye damage/irritation

Can cause severe eye irritation

d. Respiratory or skin sensitisation

No data available

e. Germ cell mutagenicity

Bacterial reverse mutation assay (Ames test, OECD 471): Negative
Classification for genotoxicity is not warranted.

f. Carcinogenicity

No evidence of rise to a carcinogenic risk.
Classification for carcinogenicity is not warranted.

g. Reproductive toxicity

No evidence of reproductive effects.
Classification for reproductive toxicity according to regulation (EC) 1272/2008 is not required.

h. STOT-single exposure

No data available

i. STOT-repeated exposure

No data available

j. Aspiration hazard

Not known to present an aspiration hazard.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

12.1.1 Acute/Prolonged toxicity to fish

No data available

12.1.2 Acute/Prolonged toxicity to aquatic invertebrates

No data available

12.1.3 Acute/Prolonged toxicity to aquatic plants

No data available

12.1.4 Toxicity to micro-organisms e.g. bacteria

No data available

Safety Data Sheet

PS1

Prepared in accordance with Annex II of the REACH Regulation EC 1907/2006,

Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Revision date: June 2019

12.1.5 Chronic toxicity to aquatic organisms

No data available

12.1.6 Toxicity to soil dwelling organisms

No data available

12.1.7 Toxicity to terrestrial plants

No data available

12.1.8 General effect

Does not accumulate in organisms

12.1.9 Further information

None available

12.2 Persistence and degradability

Not relevant for inorganic substances

12.3 Bioaccumulative potential

Not relevant for inorganic substances

12.4 Mobility in soil

Mobile in water environment

12.5 Results of PBT and vPvB assessment

Not relevant for inorganic substances

12.6 Other adverse effects

No other adverse effects are identified

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal should be in accordance with local and national legislation. Processing, use or contamination of this product may change the waste management options. Dispose of container and unused contents in accordance with applicable member state and local requirements.

The used packing is only meant for packing this product; it should not be reused for other purposes. After usage, empty the packing completely.

SECTION 14. TRANSPORT INFORMATION

Not classified as hazardous for transport [ADR (Road), RID (Rail), AND (inland waterways) and IMDG (Sea), (ICAO/IATA)].

Roman Products Ltd.

www.romanproducts.uk

Registered No. 08856080

Page 10 of 13

lime|green

Lime Green Products Ltd. Coates Kiln, Stretton Road, Much Wenlock TF13 6DG.
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Safety Data Sheet

PS1

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Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Revision date: June 2019

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

Not applicable

14.5 Environmental hazards

None

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not regulated.

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance

| | |
|-----------------------|----------------|
| Authorisations: | Not required |
| Restrictions on use: | None |
| Other EU regulations: | None. |
| National regulations: | Not applicable |

15.2 Chemical safety assessment

No data available

SECTION 16. OTHER INFORMATION

Data are based on our latest knowledge but do not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.

16.1 Hazard Statements

H315: Causes skin irritation
H318: Causes serious eye damage
H335: May cause respiratory irritation

16.2 Precautionary Statements

P102: Keep out of reach of children
P280: Wear protective gloves/protective clothing/eye protection/face protection

Safety Data Sheet

PS1

Prepared in accordance with Annex II of the REACH Regulation EC 1907/2006,

Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Revision date: June 2019

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Revision date: June 2019
P302+P352: IF ON SKIN: Wash with plenty of water
P310: Immediately call a poison centre or doctor/physician
P501: Dispose of contents/container in accordance with local/regional/national/international regulation - use a registered hazardous waste carrier/licence holder, and/or contact the manufacturer

16.3 Risk Phrases

R36/37/38: Irritating to skin, Risk of irritation to eyes, skin and respiratory system.

16.4 Safety Phrases

S2: Keep out of the reach of children
S25: Avoid contact with eyes
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S37: Wear suitable gloves
S39: Wear eye/face protection

16.5 Abbreviations

EC₅₀: median effective concentration
LC₅₀: median lethal concentration
LD₅₀: median lethal dose
NOEC: no observable effect concentration
WEL: workplace exposure limit
OEL: occupational exposure limit
PBT: persistent, bioaccumulative, toxic chemical
PNEC: predicted no-effect concentration
STEL: short-term exposure limit
TWA: time weighted average
vPvB: very persistent, very bioaccumulative chemical
EULA: European Lime Association

Disclaimer

This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation (EC 1907/2006; article 31 and Annex II), as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.

Safety Data Sheet

PS1

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Revision date: June 2019
