

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)
(This safety data sheet is for information only and does not comply with the official language requirements of article 31 (5) of REACH.)

SEAL SI 100

Version number: 2.0
Replaces version of: 28.02.2023 (1)

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

1.1 Product identifier

Trade name **SEAL SI 100**

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

Relevant identified uses Impregnation

1.3 Details of the supplier of the safety data sheet

PAGEL Spezial-Beton GmbH & Co. KG
Wolfsbankring 9
45355 Essen
Germany

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Telefax: +49 201/68504-31

e-mail: info@pagel.com

Website: www.pagel.com

e-mail (competent person)

schempershofe@pagel.de, labor@pagel.de

1.4 Emergency telephone number

Poison centre	
Name	Telephone
GBK GmbH	Emergency CONTACT (24-Hour-Number): +49 (0)6132-84463

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Classification				
Section	Hazard class	Category	Hazard class and category	Hazard statement
3.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319

For full text of abbreviations: see SECTION 16

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word warning

Pictograms

GHS07



Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.

P310 Immediately call a POISON CENTER/doctor.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

2.3 Other hazards

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0,1\%$.

Endocrine disrupting properties

Information on this property is not available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture).

3.2 Mixtures

Description of the mixture

Hazardous ingredients				
Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
silicic acid, potassium salt (MR >2,6)	CAS No 1312-76-1 EC No 215-199-1	2,5 – 5	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319	
potassium methylsilanetriolate	CAS No 31795-24-1 EC No 250-807-9 REACH Reg. No 01-2119517439-34- XXXX	1 – 2	Skin Corr. 1A / H314 Eye Dam. 1 / H318	

Remarks

For full text of H-phrases: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Self-protection of the first aider.

Remove affected person from the danger area and lay down.

Do not leave affected person unattended.

Take off immediately all contaminated clothing.

In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air.

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

Following skin contact

Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

Following eye contact

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Remove contact lenses, if present and easy to do. Continue rinsing.

Following ingestion

Rinse mouth. Do not induce vomiting.

Get medical advice/attention.

Notes for the doctor

None.

4.2 Most important symptoms and effects, both acute and delayed

Irritating to eyes and skin.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.

5.3 Advice for firefighters

Non-combustible.

Keep containers cool with water spray.

In case of fire and/or explosion do not breathe fumes.

Co-ordinate firefighting measures to the fire surroundings.

Do not allow firefighting water to enter drains or water courses.

Collect contaminated firefighting water separately.

Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Self-contained breathing apparatus (EN 133)

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

Ventilate affected area.

Avoid contact with skin and eyes.

Special danger of slipping by leaking/spilling product.

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water.

Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Bunding.

Covering of drains.

Advice on how to clean up a spill

Collect spillage.

Absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.).

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal.

Ventilate affected area.

6.4 Reference to other sections

Personal protective equipment: see section 8.

Incompatible materials: see section 10.

Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not get in eyes, on skin, or on clothing.

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.

Handling of incompatible substances or mixtures

Do not mix with acids.

Measures to protect the environment

Avoid release to the environment.

Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.

Wash hands after use.

Preventive skin protection (barrier creams/ointments) is recommended.

Remove contaminated clothing and protective equipment before entering eating areas.

Avoid contact with skin and eyes.

7.2 Conditions for safe storage, including any incompatibilities

Flammability hazards

None.

Incompatible substances or mixtures

Incompatible materials: see section 10.

Protect against external exposure, such as

heat, frost

Consideration of other advice

Keep away from food, drink and animal feedingstuffs.

Ventilation requirements

Provision of sufficient ventilation.

Specific designs for storage rooms or vessels

Keep container tightly closed and in a well-ventilated place.

Storage temperature

recommended storage temperature: >0 °C

Packaging compatibilities

Keep only in original container.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limit values (Workplace Exposure Limits)**

This information is not available.

Human health values

Relevant DNELs of components						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
silicic acid, potassium salt (MR >2,6)	1312-76-1	DNEL	5,61 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
silicic acid, potassium salt (MR >2,6)	1312-76-1	DNEL	1,49 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
potassium methylsilanetriolate	31795-24-1	DNEL	11,3 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
potassium methylsilanetriolate	31795-24-1	DNEL	1,6 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Environmental values

Relevant PNECs of components				
Name of substance	CAS No	Endpoint	Threshold level	Environmental compartment
silicic acid, potassium salt (MR >2,6)	1312-76-1	PNEC	7,5 mg/l	freshwater
silicic acid, potassium salt (MR >2,6)	1312-76-1	PNEC	1 mg/l	marine water
silicic acid, potassium salt (MR >2,6)	1312-76-1	PNEC	348 mg/l	sewage treatment plant (STP)

Relevant PNECs of components				
Name of substance	CAS No	Endpoint	Threshold level	Environmental compartment
potassium methylsilanetriolate	31795-24-1	PNEC	7,1 mg/l	sewage treatment plant (STP)
potassium methylsilanetriolate	31795-24-1	PNEC	4,8 mg/kg	freshwater sediment
potassium methylsilanetriolate	31795-24-1	PNEC	0,48 mg/kg	marine sediment
potassium methylsilanetriolate	31795-24-1	PNEC	0,19 mg/kg	soil

8.2 Exposure controls

Appropriate engineering controls

Use local and general ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection. (EN 166)

Hand protection

Protective gloves		
Material	Material thickness	Breakthrough times of the glove material
NR: natural rubber, latex	no information available	no information available

Wear suitable gloves.

Chemical protection gloves are suitable, which are tested according to EN 374.

Check leak-tightness/impermeability prior to use.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Body protection

Protective clothing against liquid chemicals.

(EN 13832, EN 340, EN 13034, EN 14605).

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

(EN 136, EN 140, EN 14387, EN 143, EN 149).

Environmental exposure controls

Use appropriate container to avoid environmental contamination.

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state

liquid

Colour	transparent
Odour	odourless
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	100 °C (CAS 7732-18-5)
Flammability	non-combustible
Lower and upper explosion limit	not determined
Flash point	technically impossible to provide
Auto-ignition temperature	technically impossible to provide
Decomposition temperature	not relevant
pH (value)	11,4
Kinematic viscosity	not determined
Dynamic viscosity	not determined
Solubility(ies)	
Water solubility	miscible in any proportion
Partition coefficient n-octanol/water (log value)	not determined
Vapour pressure	23 hPa (CAS 7732-18-5)
Density and/or relative density	
Density	1,1 g/cm ³ at 20 °C
Relative vapour density	information on this property is not available
Particle characteristics	not relevant (liquid)
9.2 Other information	
Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

Strong exothermic reaction with acids.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

acids, metals

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Classification procedure

If not otherwise specified the classification is based on:

Ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Test data are not available for the complete mixture.

Acute toxicity of components							
Name of substance	CAS No	Exposure route	End-point	Value	Species	Method	Source
silicic acid, potassium salt (MR >2,6)	1312-76-1	oral	LD0	>5.000 mg/kg	rat, female	EPA OPPTS 870.1100	ECHA
silicic acid, potassium salt (MR >2,6)	1312-76-1	dermal	LD0	>5.000 mg/kg	rat	EPA OPPTS 870.1200	ECHA
potassium methylsilanetriolate	31795-24-1	oral	LD50	>2.000 mg/kg	rat	OECD Guideline 423	ECHA

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Skin sensitisation

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Respiratory sensitisation

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Germ cell mutagenicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Carcinogenicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Reproductive toxicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

Endocrine disrupting properties

Information on this property is not available.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

Based on available data, the classification criteria are not met.

Aquatic toxicity (acute) of components

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
silicic acid, potassium salt (MR >2,6)	1312-76-1	LC50	48 h	>146 mg/l	orfe (Leuciscus idus)	DIN 38412 T.15	ECHA
silicic acid, potassium salt (MR >2,6)	1312-76-1	EC50	72 h	207 mg/l	algae (Desmodesmus subspicatus)	DIN 38412 T.9	ECHA

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
silicic acid, potassium salt (MR >2,6)	1312-76-1	EC50	24 h	>146 mg/l	daphnia magna	OECD Guideline 202	ECHA
potassium methylsilanetriolate	31795-24-1	LC50	96 h	>500 mg/l	Danio rerio	EU method C.1	ECHA
potassium methylsilanetriolate	31795-24-1	EC50	72 h	>120 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA
potassium methylsilanetriolate	31795-24-1	EC50	48 h	>500 mg/l	daphnia magna	EU method C.2	ECHA

Aquatic toxicity (chronic)

Based on available data, the classification criteria are not met.

Aquatic toxicity (chronic) of components

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
potassium methylsilanetriolate	31795-24-1	NOEC	21 d	100 mg/l	daphnia magna	OECD Guideline 211	ECHA
potassium methylsilanetriolate	31795-24-1	NOEC	72 h	120 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA

12.2 Persistence and degradability**Biodegradation**

Test data are not available for the complete mixture.

Degradability of components

Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
potassium methylsilanetriolate	31795-24-1	biotic/abiotic	0 %	28 d	OECD Guideline 310	ECHA

Persistence

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0,1\%$.

12.6 Endocrine disrupting properties

Information on this property is not available.

12.7 Other adverse effects

Harmful effect on fish, plankton and other organisms due to pH shift possible.

Remarks

None.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

Completely emptied packages can be recycled.

Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1	UN number or ID number	not subject to transport regulations
14.2	UN proper shipping name	-
14.3	Transport hazard class(es)	-
14.4	Packing group	-
14.5	Environmental hazards	-
14.6	Special precautions for user	-
14.7	Maritime transport in bulk according to IMO instruments	-

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

Name	Name acc. to inventory	Restriction
SEAL SI 100	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC	R3

Legend

- R3 1. Shall not be used in:
- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
 - tricks and jokes,
 - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
2. Articles not complying with paragraph 1 shall not be placed on the market.
3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
- can be used as fuel in decorative oil lamps for supply to the general public, and
 - present an aspiration hazard and are labelled with H304.
4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
- (a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil – or even sucking the wick of lamps – may lead to life-threatening lung damage";
 - (b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter fluid may lead to life threatening lung damage';
 - (c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.;

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

None of the ingredients are listed.

Seveso Directive

Not assigned.

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

None of the ingredients are listed.

Regulation on the marketing and use of explosives precursors

None of the ingredients are listed.

Regulation on drug precursors

None of the ingredients are listed.

Regulation on substances that deplete the ozone layer (ODS)

None of the ingredients are listed.

Regulation concerning the export and import of hazardous chemicals (PIC)

None of the ingredients are listed.

Regulation on persistent organic pollutants (POP)

None of the ingredients are listed.

National regulations (Germany)

Technical instructions on air quality control (Germany)

Number	Group of substances	Class	Conc.	Mass flow	Mass concentration	Notation
-	not assigned	-	≥ 25 wt%	-	-	-

Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK) 12
(non-combustible liquids)

Chemikalien-Verbotsverordnung (Chemicals Prohibition Ordinance) - ChemVerbotsV

none of the ingredients are listed

Other information

Observe employment restrictions for young people according to § 22 JArbSchG.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)
1.4	-	Poison centre: change in the listing (table)
3.2	-	Hazardous ingredients: change in the listing (table)
8.1	-	Human health values Relevant DNELs of components of the mixture
8.1	-	Relevant DNELs of components: change in the listing (table)
8.1	-	Environmental values Relevant PNECs of components of the mixture
8.1	-	Relevant PNECs of components: change in the listing (table)
8.2	-	Body protection: Protective clothing against liquid chemicals. (EN 13832, EN 340, EN 13034, EN 14605).

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LGK	Lagerklasse (storage class according to TRGS 510, Germany)
NLP	No-Longer Polymer
NOEC	No Observed Effect Concentration
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)

Abbr.	Descriptions of used abbreviations
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
SVHC	Substance of Very High Concern
TRGS	Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, Version 2023/707/EU.

Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties.

Health hazards.

Environmental hazards.

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

Responsible for the safety data sheet

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Disclaimer

This information is based upon the present state of our knowledge.

This SDS has been compiled and is solely intended for this product.