

## SAFETY DATA SHEET

## Shogun Silicon

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

## 1.1. Product identifier

## Trade name

Shogun Silicon

## Unique formula identifier (UFI)

P310-W0NN-V006-NRYS

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

## Relevant identified uses of the substance or mixture

None known.

## Uses advised against

None known.

## 1.3. Details of the supplier of the safety data sheet

## Company and address

**Aqualabs Ltd**

Unit 3A

Parkway One

Parkway Drive

S9 4WU Sheffield

United Kingdom

+44 (0) 114 244 3592

## Contact person

Simon Spinks

## E-mail

simon.spinks@aqualabs-uk.com

## Revision

15/10/2024

## SDS Version

1.0

## 1.4. Emergency telephone number

Healthcare professionals: Dial 0344 892 0111 to reach The National Poisons Information Service (NPIS) (24 hour service)

General public:

England - Dial 111 to reach NHS 111 (24 hour service)

Scotland - Dial 112 to reach NHS 24 (24 hour service)

Wales - Dial 111 or 0845 4647 to reach NHS Direct (24 hour service)

See section 4 "First aid measures".

## SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

## 2.1. Classification of the substance or mixture

Skin Irrit. 2; H315, Causes skin irritation.

Eye Irrit. 2; H319, Causes serious eye irritation.

## 2.2. Label elements

## Hazard pictogram(s)



## Signal word

#### Warning

#### Hazard statement(s)

Causes skin irritation. (H315)

Causes serious eye irritation. (H319)

#### Precautionary statement(s)

##### General

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

Keep out of reach of children. (P102)

##### Prevention

Wash hands thoroughly after handling. (P264)

Wear eye protection/protective gloves/protective clothing. (P280)

##### Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. (P305+P351+P338)

If eye irritation persists: Get medical advice/attention. (P337+P313)

##### Storage

-

##### Disposal

-

#### Hazardous substances

None known.

#### Additional labelling

UFI: P310-W0NN-V006-NRYS

### 2.3. Other hazards

#### Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Silicic acid, potassium salt	CAS No.: 1312-76-1 EC No.: 215-199-1 UK-REACH: 01-2119456888-17 Index No.:	25-40%	Skin Irrit. 2, H315 Eye Irrit. 2, H319	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

### Other information

-

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

#### Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

**Skin contact**

IF ON SKIN: Wash with plenty of water and soap.

Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

**Eye contact**

If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

**Ingestion**

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

**Burns**

Not applicable.

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

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

If eye irritation persists: Get medical advice/attention.

**Information to medics**

Bring this safety data sheet or the label from this product.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

Not applicable.

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

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Some metal oxides

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

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

Avoid direct contact with spilled substances.

Contaminated areas may be slippery.

**6.2. Environmental precautions**

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

**6.3. Methods and material for containment and cleaning up**

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

**6.4. Reference to other sections**

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

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

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

### Recommended storage material

Keep only in original packaging.

Non-aluminium

### Storage conditions

Dry, cool and well ventilated

### Incompatible materials

Strong acids

Aluminium

Zinc

Tin

## 7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

No substances are listed in the national list of substances with an occupational exposure limit.

### DNEL

Silicic acid, potassium salt

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	0.74 mg/kg bw/day
Long term – Systemic effects - General population	Dermal	0.74 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	1.49 mg/m <sup>3</sup>
Long term – Systemic effects - General population	Inhalation	1.38 mg/m <sup>3</sup>
Long term – Systemic effects - Workers	Inhalation	5.61 mg/m <sup>3</sup>

### PNEC

Silicic acid, potassium salt

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		7.5 mg/L
Intermittent release		7.5 mg/L
Marine water		1 mg/L
Sewage treatment plant		348 mg/L

## 8.2. Exposure controls

Apply general control to prevent unnecessary exposure

### General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

### Exposure scenarios

See the exposure scenario appended to the safety data sheet. Ensure that the operational conditions and risk management measures in the relevant exposure scenario are complied with.

### Exposure limits

Occupational exposure limits have not been defined for the substances in this product.

### Appropriate technical measures

Apply standard precautions during use of the product. Avoid inhalation of vapours.

### Hygiene measures

Take off contaminated clothing and wash it before reuse.

### Measures to avoid environmental exposure

No specific requirements.

## Individual protection measures, such as personal protective equipment

### Generally

Use only UKCA marked protective equipment.

### Respiratory Equipment

Type	Class	Colour	Standards
Respiratory protection is not needed in the event of adequate ventilation.			

### Skin protection

Recommended	Type/Category	Standards
Wear appropriate protection clothing, e.g. coveralls in polypropylene or working clothes in cotton or polyester.	-	-



### Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
4H	0,068 - 0,084	> 480	EN374-2, EN374-3, EN388



### Eye protection

Type	Standards
Safety glasses with side shields.	EN166



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Physical state

Liquid

#### Colour

No relevant or available data due to the nature of the product.

#### Odour / Odour threshold

No relevant or available data due to the nature of the product.

#### pH

11

#### Density (g/cm<sup>3</sup>)

1.103

#### Kinematic viscosity

No relevant or available data due to the nature of the product.

#### Particle characteristics

Does not apply to liquids.

#### Phase changes

##### Melting point/Freezing point (°C)

No relevant or available data due to the nature of the product.

##### Softening point/range (°C)

Does not apply to liquids.

##### Boiling point (°C)

No relevant or available data due to the nature of the product.

##### Vapour pressure

No relevant or available data due to the nature of the product.

##### Relative vapour density

No relevant or available data due to the nature of the product.

##### Decomposition temperature (°C)

No relevant or available data due to the nature of the product.

## Data on fire and explosion hazards

### Flash point (°C)

No relevant or available data due to the nature of the product.

### Flammability (°C)

No relevant or available data due to the nature of the product.

### Auto-ignition temperature (°C)

No relevant or available data due to the nature of the product.

### Lower and upper explosion limit (% v/v)

No relevant or available data due to the nature of the product.

## Solubility

### Solubility in water

No relevant or available data due to the nature of the product.

### n-octanol/water coefficient (LogKow)

No relevant or available data due to the nature of the product.

### Solubility in fat (g/L)

No relevant or available data due to the nature of the product.

## 9.2. Other information

### Oxidizing properties

No relevant or available data due to the nature of the product.

### Other physical and chemical parameters

No data available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

Strong acids

Aluminium

Zinc

Tin

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

#### Acute toxicity

Product/substance	Silicic acid, potassium salt
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	> 5000 mg/kg bw

Product/substance	Silicic acid, potassium salt
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	> 2.06 g/m <sup>3</sup>

Product/substance	Silicic acid, potassium salt
Species:	Rat
Route of exposure:	Dermal
Test:	LD50

Result: > 5000 mg/kg bw

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/irritation

Causes serious eye irritation.

#### Respiratory sensitisation

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

#### Skin sensitisation

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

#### Germ cell mutagenicity

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

#### Carcinogenicity

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

#### Reproductive toxicity

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

#### STOT-single exposure

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

#### STOT-repeated exposure

Product/substance	Silicic acid, potassium salt
Species:	Rat
Test:	NOAEL
Result:	159 mg/kg bw/day
Conclusion:	No adverse effect observed

#### Aspiration hazard

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

#### 11.2. Information on other hazards

##### Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

##### Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

##### Other information

None known.

## SECTION 12: Ecological information

### 12.1. Toxicity

Product/substance	Silicic acid, potassium salt
Species:	Fish, <i>Leuciscus idus</i>
Duration:	48 hours
Test:	LC50
Result:	> 146 mg/L

Product/substance	Silicic acid, potassium salt
Species:	Daphnia, <i>Daphnia magna</i>
Duration:	24 hours
Test:	EC50
Result:	> 146 mg/L

### 12.2. Persistence and degradability

Product/substance	Silicic acid, potassium salt
Result:	Inorganic. Soluble silicates, upon dilution, rapidly polymerise into molecular species indistinguishable from natural dissolved silica.
Conclusion:	No potential for bioaccumulation

### 12.3. Bioaccumulative potential

Product/substance	Silicic acid, potassium salt
Conclusion:	No potential for bioaccumulation

### 12.4. Mobility in soil

No data available.

#### 12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

#### 12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

#### 12.7. Other adverse effects

None known.

### SECTION 13: Disposal considerations

#### Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 4 - Irritant (skin irritation and eye damage)

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

#### EWC code

Not applicable.

#### Specific labelling

#### Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

### SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

#### Additional information

Not dangerous goods according to ADR, IATA and IMDG.

#### 14.6. Special precautions for user

Not applicable.

#### 14.7. Maritime transport in bulk according to IMO instruments

No data available.

### SECTION 15: Regulatory information

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

##### Restrictions for application

No special.

##### Demands for specific education

No specific requirements.

##### Control of Major Accident Hazards (COMAH) - Categories / dangerous substances

Not applicable.

##### Additional information

Not applicable.

##### Sources

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals



(REACH) as retained and amended in UK law.

## 15.2. Chemical safety assessment

No

### SECTION 16: Other information

#### Full text of H-phrases as mentioned in section 3

H315, Causes skin irritation.

H319, Causes serious eye irritation.

#### Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWG = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

GWP = Global warming potential

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

#### Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

#### The safety data sheet is validated by

NHP

#### Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en

## **Section 1 – Title**

<b>Short title of the exposure Scenario</b>	Silicic acid, potassium salt - Use in Consumer products
<b>Use descriptor</b>	Sectors of use [SU]: 21 Chemical product category [PC]: 1, 9a, 9b, 14, 15, 17, 23, 24, 26, 30, 33, 34, 35, 39 Environmental release categories [ERC]: Not required
<b>Process and activities covered by the exposure scenario</b>	General exposures to consumers arising from the use of household products sold.

## **Section 2 – Operational conditions and risk management measures**

<b>Section 2.1</b>	<b>Control of consumer exposure</b>
<b>Characteristics of chemical products</b>	
Physical form of the product	Powder/Granules or liquid
Vapour pressure (Kpa)	< 0.5 Kpa
Concentration of substance in preparation/mixture or article	Covers percentage substance up to 100% unless otherwise stated.
Amount used per time or activity	Unless otherwise stated, covers use amounts up to 37500g; covers skin contact area up to 6660 cm <sup>2</sup> .
Duration and frequency of use	Unless otherwise stated, covers use frequency up to 4 times per day; covers exposure up to 8 hours per event.
Other operational conditions affecting exposure	Unless otherwise stated assumes use at ambient temperatures; assumes use in a 20 m <sup>3</sup> room; assumes use with typical ventilation.
<b>Chemical product category [PC]</b>	<b>Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)</b>
PCs - general case	OC In consumer products the irritation hazard of soluble silicates is addressed, if necessary, by appropriate labelling and the advice to use (household) gloves on the consumer product. In general, dermal, inhalation and oral consumer exposure are minimised due to formulation (limited concentration of soluble silicates, particle size distribution, agglomeration and dust potential, tablets and gels), packaging and bad taste of commercially available products. RMM No specific RMMs identified beyond those OCs stated.
PC 1, 9a, 9b, 14, 15, 17, 23, 24, 26, 30, 33, 34, 39	OC Covers use up to 365 days/year; covers use under typical household ventilation; covers default OC's of ECETOC TRA tool. RMM No specific RMMs identified beyond those OCs stated.
PC 35 - laundry handwashing (example)	OC Unless otherwise stated, covers concentrations up to 25%; covers use up to 4 days/week; covers use up to 1 time/day of use; covers skin contact area up to 1980 cm <sup>2</sup> ; covers use under typical household ventilation; Covers use in room size of 20 m <sup>3</sup> ; for each use event, covers exposure up to 0.17 hr/event. RMM No specific RMMs identified beyond those OCs stated.

PC 35 - pre-treatment  
handwashing  
(example)

OC Unless otherwise stated, covers concentrations up to 60%; covers use up to 21 tasks/week; covers skin contact area up to 840 cm<sup>2</sup>; covers use under typical household ventilation; Covers use in room size of 20 m<sup>3</sup>; for each use event, covers exposure up to 0.17 hr/event.

RMM No specific RMMs identified beyond those OCs stated.

### **Section 3: Exposure estimation**

#### **3.1 Health**

The ECETOC TRA tool has been used to estimate consumer exposures, consistent with the content of ECETOC Report no. 107 and the Chapter R15 of the IR & CSA TGD. Where exposure determinants differ to these sources, then they are indicated.

### **Section 4: Guidance to check compliance with the Exposure Scenario**

#### **4.1 Health**

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

### **Identified Uses for SILICIC ACID, POTASSIUM SALT (potassium salt)**

#### **Identified uses by consumers**

<b>IU No.</b>	<b>Identified use name</b>	<b>Process category [PROC] Market sector [PC] Sectors of use [SU] Environmental release categories [ERC]</b>
C-1	Consumer use of detergents: Fabric washing detergents, dishwasher detergents, industrial cleansing agents, hard surface cleaning and disinfecting agents	PC 35 ERC 8a, 8b, 8d, 8e
C-2	Adhesives and binders in plasters and mortars.	PC 9b ERC 8c, 8f, 10a, 11a
C-3	Surface coatings: Paints for masonry and glass surfaces, architectural coatings	PC 9a ERC 8a, 8c, 8d, 8f
C-4	Cosmetics: Manufacture of Cosmetics: Hair treatment (bleaching and dyeing formulations)	PC 39 ERC 8b, 8c

### **Glossary**

#### **Sectors of use [SU]**

#### **Key descriptor: Main user groups**

SU21 Consumer uses: Private households (=general public, =consumers)

#### **Chemical product category [PC]/Market sector [PC]**

PC 1 Adhesives, sealants

PC 9a Coatings and paints, thinners, paint removers

PC 9b	Fillers, putties, plasters, modelling clay
PC 14	Metal surface treatment products, including galvanic and electroplating products.
PC 15	Non-metal-surface treatment products
PC 17	Hydraulic fluids
PC 23	Leather tanning, dye, finishing, impregnation and care products
PC 24	Lubricants, greases, release products
PC 26	Paper and board dye, finishing and impregnation products; including bleaches and other processing aids.
PC 30	Photo-chemicals
PC 33	Semiconductors
PC 34	Textile dyes, finishing and impregnating products; including bleaches and other processing aids
PC 35	Washing and cleaning products (including solvent based products)
PC 39	Cosmetics, personal care products

#### **Environmental release categories [ERC]**

ERC 8a	Wide dispersive indoor use of processing
ERC 8b	Wide dispersive indoor use
ERC 8c	Wide dispersive indoor use
ERC 8d	Wide dispersive outdoor use of processing aids in open systems
ERC 8e	Wide dispersive outdoor use of reactive systems in open systems
ERC 8f	Wide dispersive outdoor use of inclusion into or onto a matrix
ERC 10a	Wide dispersive outdoor use of long-life articles and materials with low release
ERC 11a	Wide dispersive indoor use of long-life articles and materials with low release