

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

**Product name**

DRYSIL® 120G

**Name:** Silicic acid, sodium salt (1,6 < MR ≤ 2,6) (CAS: 1344-09-8, EC: 215-687-4)**REACH Registration number:** 01-2119448725-31-0029**Synonyms**

Natrijev silikat, Sodium silicate, Natriumsilicat

<https://my.chemius.net/p/fsqDbU/en/pd/en>

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

**Relevant identified uses**

Industrial use.

**Uses advised against**

No information.

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

**Supplier**

SILKEM, d.o.o.  
Tovarniška cesta 10  
2325 Kidričevo, Slovenia  
+386 2 7991 200  
info@silkem.si

**Manufacturer**

SILKEM, d. o. o.  
Tovarniška cesta 10  
2325 Kidričevo, Slovenia  
+386 2 7991 200  
info@silkem.si

### 1.4 Emergency Telephone Number

**Emergency**

112

**Supplier**

+386 2 7991 214 (7h - 15h)

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

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

Skin Irrit. 2; H315 Causes skin irritation.

Eye Dam. 1; H318 Causes serious eye damage.

STOT SE 3; H335 May cause respiratory irritation.

### 2.2 Label elements

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

**Signal word: DANGER****Hazard statements:**

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

**Supplemental hazard information (EU):**

Not applicable.

**Precautionary statements:**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P262 Do not get in eyes, on skin, or on clothing.

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

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**2.3 Other hazards****PBT/vPvB**

No information.

**Endocrine disrupting properties**

No information.

**Additional information**

The substances in the product are not classified as persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

Name	CAS EC Index Reach	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits	Notes for substances
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	1344-09-8 215-687-4 - 01-2119448725-31-0029	99	Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335	/	/

**3.2 Mixtures**

For substances see 3.1.

**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures****General notes**

Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency.

**Following inhalation**

Remove patient to fresh air - move out of dangerous area. If symptoms develop and persist, seek medical attention.

**Following skin contact**

Take off all contaminated clothing. If symptoms develop and persist, seek medical attention. Wash affected skin areas immediately with plenty of water and soap.

**Following eye contact**

Immediately flush eyes with running water, keeping eyelids apart. If irritation does not stop, seek professional medical treatment!

**Following ingestion**

Do not induce vomiting! Rinse mouth thoroughly with water. Consult a physician. Show the physician the safety data sheet or label.

**4.2 Most important symptoms and effects, both acute and delayed****Following inhalation**

Coughing, sneezing, nasal discharge, labored breathing.

**Following skin contact**

Itching, redness, pain.

**Following eye contact**

Redness, tearing, pain.

**Following ingestion**

Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area.

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

No information.

**SECTION 5: FIREFIGHTING MEASURES****5.1 Extinguishing media****Suitable extinguishing media**

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

**Unsuitable extinguishing media**

No information.

**5.2 Special hazards arising from the substance or mixture****Hazardous combustion products**

No information.

**5.3 Advice for firefighters****Protective actions**

In case of fire do not breathe fumes/gases.

**Special protective equipment for fire-fighters**

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

**Additional information**

No information.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

#### **For non-emergency personnel**

##### **Protective equipment**

Use personal protective equipment (Section 8).

##### **Precautionary measures**

Ensure adequate ventilation.

##### **Emergency procedures**

No information.

#### **For emergency responders**

No information.

### 6.2 Environmental precautions

If accidental large entry into water or ground occurs, inform responsible authorities.

### 6.3 Methods and material for containment and cleaning up

#### **For containment**

No information.

#### **For cleaning up**

Collect in a suitable container and dispose of according to regulations.

#### **Other information**

No information.

### 6.4 Reference to other sections

See also sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

#### **Protective measures**

##### **Measures to prevent fire**

Ensure adequate ventilation.

##### **Measures to prevent aerosol and dust generation**

Prevent dust formation.

##### **Measures to protect the environment**

No information.

##### **Other measures**

No information.

#### **Advice on general occupational hygiene**

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid contact with skin and eyes. Do not breathe dust.

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

#### **Technical measures and storage conditions**

Keep in cool and well ventilated area. Keep away from food, drink and animal feeding stuffs.

**Packaging materials**

inappropriate material: aluminium

**Requirements for storage rooms and vessels**

Keep in tightly closed containers.

**Storage class**

No information.

**Further information on storage conditions**

Keep away from incompatible materials (see Section 10).

## 7.3 Specific end use(s)

**Recommendations**

No information.

**Industrial sector specific solutions**

No information.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

## 8.1 Control parameters

**Occupational Exposure limit values**

No information.

**Information on monitoring procedures**

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

**DNEL/DMEL values****For product**

No information.

**For components**

Name	Type	Exposure route	exp. frequency	Remark	value
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	Worker	inhalation	long term systemic effects	/	5.61 mg/m <sup>3</sup>
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	Worker	dermal	long term systemic effects	/	1.59 mg/kg bw/day
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	Consumer	inhalation	long term systemic effects	/	1.38 mg/m <sup>3</sup>
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	Consumer	dermal	long term systemic effects	/	0.8 mg/kg bw/day
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	Consumer	oral	long term systemic effects	/	0.8 mg/kg bw/day

**PNEC values****For product**

No information.

**For components**

Name	Exposure route	Remark	value
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	fresh water	/	7.5 mg/L
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	marine water	/	1 mg/L
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	water treatment plant	/	348 mg/L
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	water, intermittent release	/	7.5 mg/L

**8.2 Exposure controls****Appropriate engineering control****Substance/mixture related measures to prevent exposure during identified uses**

Use good personal hygiene practices – wash hands at breaks and when done working with material.

**Structural measures to prevent exposure**

No information.

**Organisational measures to prevent exposure**

No information.

**Technical measures to prevent exposure**

Provide good ventilation and local exhaust in areas with increased concentration.

**Personal protective equipment****Eye and face protection**

Safety glasses with side protection (BS EN ISO 16321-1:2022).

**Hand protection**

Protective gloves (EN 374).

**Appropriate materials**

No information

**Skin protection**

Cotton protective clothing and shoes that cover the entire foot (EN ISO 20345).

**Respiratory protection**

Wear suitable protective breathing mask (BS EN 136) with filter A2-P2 (BS EN 14387).

**Thermal hazards**

No information.

**Environmental exposure controls****Substance/mixture related measures to prevent exposure**

No information.

**Instruction measures to prevent exposure**

No information.

**Organisational measures to prevent exposure**

No information.

**Technical measures to prevent exposure**

Do not allow product to reach drains, sewage systems or ground water.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

## 9.1 Information on basic physical and chemical properties

### Physical state

solid - granules

### Colour

white

### Odour

no odour

### Important health, safety and environmental information

Odour threshold	No information.
Melting point/Freezing point	> 1000 °C
Boiling point or initial boiling point and boiling range	No information.
Flammability	No information.
Lower and upper explosion limit	No information.
Flash point	No information.
Auto-ignition temperature	No information.
Decomposition temperature	No information.
pH	11 — 12
Viscosity	No information.
Solubility	Water: Soluble
Partition coefficient	No information.
Vapour pressure	No information.
Density and/or relative density	Bulk density: 85 — 135 kg/m <sup>3</sup>
Relative vapour density	No information.
Particle characteristics	No information.

## 9.2 Other information

Explosive properties	No information.
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## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

See section 10.3.

### 10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

### 10.3 Possibility of hazardous reactions

Reacts with (some) metals: release of highly flammable gases/vapours (hydrogen). Aqueous mixtures may react with aluminium, zinc, tin, copper and their alloys evolving hydrogen gas which can form an explosive mixture with air. Exothermic reaction with acids. Can react with sugar residues with carbon monoxide being formed.

### 10.4 Conditions to avoid

Follow directions for use and storage.

### 10.5 Incompatible materials

Aluminium, stain, zinc, and their alloys. See Section 10.3.  
Strong acids.

### 10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released.

## SECTION 11: TOXICOLOGICAL INFORMATION

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

#### (a) Acute toxicity

##### For components

Name	Exposure route	Type	Species	Time	value	Method	Remark
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	oral	LD <sub>50</sub>	rat	/	2800 mg/kg	OECD 401	/
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	dermal	LD <sub>50</sub>	rat	/	> 5000 mg/kg	EPA OPPTS 870.1200	/

#### (b) Skin corrosion/irritation

##### For components

Name	Species	Time	result	Method	Remark
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	rabbit	24 h	Severe irritation.	/	/

#### (c) Serious eye damage/irritation

##### For components

Name	Exposure route	Species	Time	result	Method	Remark
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	/	rabbit	24 h	Severe irritation.	/	/

#### (d) Respiratory or skin sensitisation

##### For components

Name	Exposure route	Species	Time	result	Method	Remark
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	dermal	mouse	/	Non sensitising.	OECD 429	Local lymph node assay

**(e) (Germ cell) mutagenicity****For components**

Name	Type	Species	Time	result	Method	Remark
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	in-vitro mutagenicity	Cell: Mammalian-Animal	/	Negative with metabolic activation, negative without metabolic activation.	OECD 473	/
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	/	Cell: Mammalian-Animal	/	Negative with metabolic activation, negative without metabolic activation.	OECD 476	Gene Mutation
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	/	Bacteria	/	Negative with metabolic activation, negative without metabolic activation.	OECD 471	Bacterial Reverse Mutation Test
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	/	mouse	/	Negative.	OECD 475	oral

**(f) Carcinogenicity****For components**

Name	Exposure route	Type	Species	Time	value	result	Method	Remark
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	/	/	/	/	/	Not carcinogenic.	/	/

**(g) Reproductive toxicity****For components**

Name	Reproductive toxicity type	Type	Species	Time	value	result	Method	Remark
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	/	NOAEL (P)	rat	12 weeks	159 mg/kg	/	3 generation study	oral: drinking water

**Summary of evaluation of the CMR properties**

No information.

**(h) STOT-single exposure**

No information.

### (i) STOT-repeated exposure

#### For components

Name	Exposure route	Type	Species	Time	Exposure	organ	value	result	Method	Remark
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	oral	NOAEL	rat	4 weeks	/	/	2400 mg/kg	/	OECD 407	daily

### (j) Aspiration hazard

No information.

#### Symptoms related to the physical, chemical and toxicological characteristics

No information.

#### Interactive effects

No information.

## 11.2 Information on other hazards

### Endocrine disrupting properties

No information.

### Other information

No information.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

#### Acute (short-term) toxicity

##### For components

Name	Type	value	Exposure time	Species	organism	Method	Remark
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	LC <sub>50</sub>	> 100 mg/L	96 h	fish	<i>Danio rerio</i>	/	/

#### Chronic (long-term) toxicity

##### For components

Name	Type	value	Exposure time	Species	organism	Method	Remark
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	NOEC	35 mg/l	/	fish	/	/	/

### 12.2 Persistence and degradability

#### Abiotic degradation, physical- and photo-chemical elimination

No information.

**Biodegradation****For components**

Name	Type	Rate	Time	Evaluation	Method	Remark
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	-	/	/	not readily biodegradable	/	/

## 12.3 Bioaccumulative potential

**Partition coefficient**

No information.

**Bioconcentration factor (BCF)****For components**

Name	Species	organism	value	Duration	Evaluation	Method	Remark
Silicic acid, sodium salt (1,6 < MR ≤ 2,6)	-	/	/	/	Does not bioaccumulate.	/	/

## 12.4 Mobility in soil

**Known or predicted distribution to environmental compartments**

No information.

**Surface tension**

No information.

**Adsorption/Desorption**

No information.

## 12.5 Results of PBT and vPvB assessment

The substance is not classified as persistent, toxic, or a substance that can accumulate (PBT) or very persistent and very bioaccumulative (vPvB) substance.

## 12.6 Endocrine disrupting properties

No information.

## 12.7 Other adverse effects

No information.

## 12.8 Additional information

**For components****Silicic acid, sodium salt (1,6 < MR ≤ 2,6)**

Do not allow to reach ground water, water bodies or sewage systems.

**SECTION 13: DISPOSAL CONSIDERATIONS**

## 13.1 Waste treatment methods

**Product / Packaging disposal****Waste chemical**

Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste.

#### Waste codes / waste designations according to LoW

No information.

#### Packaging

Deliver completely emptied containers to approved waste disposal authorities.

#### Waste codes / waste designations according to LoW

No information.

#### Waste treatment-relevant information

No information.

#### Sewage disposal-relevant information

No information.

#### Other disposal recommendations

No information.

## SECTION 14: TRANSPORT INFORMATION

### 14.1 UN number or ID number

ADR/RID	IMDG	IATA	ADN
Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.

### 14.2 UN proper shipping name

ADR/RID	IMDG	IATA	ADN
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable

### 14.3 Transport hazard class(es)

ADR/RID	IMDG	IATA	ADN
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable

### 14.4 Packing group

ADR/RID	IMDG	IATA	ADN
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable

### 14.5 Environmental hazards

ADR/RID	IMDG	IATA	ADN
NO	NO	NO	NO

### 14.6 Special precautions for user

ADR/RID	IMDG	IATA	ADN
Limited quantities: <b>Not given/not applicable</b>	Limited quantities: <b>Not given/not applicable</b>		Limited quantities: <b>Not given/not applicable</b>

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

ADR/RID	IMDG	IATA	ADN
	Not given/not applicable		

## SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

#### Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

#### Ingredients according to Regulation (EC) No 648/2004 on detergents

No information.

#### Special instructions

No information.

### 15.2 Chemical Safety Assessment

A Chemical Safety Report (CSR) was conducted.

## SECTION 16: OTHER INFORMATION

### Indication of changes

3.1 Substances 6.3 Methods and material for containment and cleaning up 8.1 Control parameters 9.1 Information on basic physical and chemical properties 9.2 Other information 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 12.1 Toxicity 12.2 Persistence and degradability 12.3 Bioaccumulative potential 12.8 Additional information 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture 15.2 Chemical Safety Assessment

### Key literature references and sources for data

NADIS 100G

### Abbreviations and acronyms

ATE - Acute Toxicity Estimate

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

CEN - European Committee for Standardisation

C&L - Classification and Labelling

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

CAS# - Chemical Abstracts Service number

CMR - Carcinogen, Mutagen, or Reproductive Toxicant

CSA - Chemical Safety Assessment

CSR - Chemical Safety Report

DMEL - Derived Minimal Effect Level

DNEL - Derived No Effect Level  
DPD - Dangerous Preparations Directive 1999/45/EC  
DSD - Dangerous Substances Directive 67/548/EEC  
DU - Downstream User  
EC - European Community  
ECHA - European Chemicals Agency  
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)  
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)  
EEC - European Economic Community  
EINECS - European Inventory of Existing Commercial Substances  
ELINCS - European List of notified Chemical Substances  
EN - European Standard  
EQS - Environmental Quality Standard  
EU - European Union  
Euphrac - European Phrase Catalogue  
EWC - European Waste Catalogue (replaced by LoW – see below)  
GES - Generic Exposure Scenario  
GHS - Globally Harmonized System  
IATA - International Air Transport Association  
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air  
IMDG - International Maritime Dangerous Goods  
IMSBC - International Maritime Solid Bulk Cargoes  
IT - Information Technology  
IUCLID - International Uniform Chemical Information Database  
IUPAC - International Union for Pure Applied Chemistry  
JRC - Joint Research Centre  
Kow - octanol-water partition coefficient  
LC50 - Lethal Concentration to 50 % of a test population  
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)  
LE - Legal Entity  
LoW - List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)  
LR - Lead Registrant  
M/I - Manufacturer / Importer  
MS - Member States  
MSDS - Material Safety Data Sheet  
OC - Operational Conditions  
OECD - Organization for Economic Co-operation and Development  
OEL - Occupational Exposure Limit  
OJ - Official Journal  
OR - Only Representative  
OSHA - European Agency for Safety and Health at work  
PBT - Persistent, Bioaccumulative and Toxic substance  
PEC - Predicted Effect Concentration  
PNEC(s) - Predicted No Effect Concentration(s)  
PPE - Personal Protection Equipment  
(Q)SAR - Qualitative Structure Activity Relationship  
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail  
RIP - REACH Implementation Project  
RMM - Risk Management Measure  
SCBA - Self-Contained Breathing Apparatus  
SDS - Safety data sheet  
SIEF - Substance Information Exchange Forum  
SME - Small and Medium sized Enterprises  
STOT - Specific Target Organ Toxicity  
(STOT) RE - Repeated Exposure  
(STOT) SE - Single Exposure  
SVHC - Substances of Very High Concern  
UN - United Nations  
vPvB - Very Persistent and Very Bioaccumulative

**List of relevant H phrases**



H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.