TYPE S1 / W1 / W01
SUMMER / WINTER / RAPID
SILICATE RESIN BASE
SAFETY DATA SHEET

PART A

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	**TYPE S1 / W1 / W01 - SUMMER / WINTER / RAPID SILICATE RESIN BASE - PART A**
Revision Date	08-2020
Product Code	Type S1 / W1 / W01 - Summer / Winter / Rapid Silicate Resin Base
Company	S1E, 300 S. Dayton St., Davison, MI 48423
Company Contact	Tony Dipzinski
Company Phone	810-412-4740
Emergency	Domestic Shipments and to Canada: 1-800-633-8253 International Shipments: 1-801-629-0667

2. HAZARDS IDENTIFICATION

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

Hazard classes/categories

Skin Irrit.	2
Eye Dam.	1

Labeling according to Regulation (EC) No 1272/2008 (CLP):

Signal Word	Danger



Hazard statements

H315	Causes skin irritation
H318	Causes serious eye damage

Precautionary statements

P262	Do not get in eyes, on skin, or on clothing.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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.

Hazard determining component(s) for labelling

Silicid acid, sodium salt (CAS: 1344-09-8, EINECS: 215-687-4).

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization:

Name	*EC-Nr.*	*CAS-Nr.*	*REACH Reg. Nr.*	*Content (%)*	*Classification according to Regulation (EC) No 1272/2008 (CLP)*	
					Hazard categories	*H-phrase(s)*
Silicic acid, sodium salt (Molverhältnis Na_2O : SiO_2 = 1 : > 1.6 - < 2.6)	215-687-4	1344-09-8	01-2119448725-31	25–50	Skin Irrit. 2 Eye Dam. 1	H315 H318
Water	231-791-2	7732-18-5	—	50–75	—	—

4. FIRST AID MEASURE

General information	No special measures necessary
If inhaled	No special measures necessary
On skin contact	In case of contact with skin, wash off immediately with plenty of water. Do not allow the product to dry on the skin. Consult a doctor if skin irritation persists.
On contact with eyes	Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
On ingestion	Immediately rinse mouth and drink plenty of water, do not induce vomiting, seek medical attention immediately.

Most important symptoms and effects, both acute and delayed

No data.

Indication of any immediate medical attention and special treatment needed

Hints for the physician	This product contains alkali silicates

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.
Non-suitable extinguishing media	Compatible with all usual extinguishing media.

Special hazards arising from the substance or mixture
None known.

Advice for firefighter
Special protective equipment: In case of combustion use a suitable breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Use personal protective clothing. Avoid contact with skin, eyes and clothing. High risk of slipping due to leakage/spillage of product.

Environmental precautions
Do not allow to enter drains or waterways.

Methods and material for containment and cleaning up
Take up with absrobent material (e.g. sand, kieselguhr, universal binder). Rinse away rest with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling
Observe the usual precautions for handling chemicals. Open and handle container with care.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels	keep only in the original container.
Further information on storage conditions	Protect from frost.
Recommended storage temperature	value 5 - 45°C.
VCI storage category	12 non-combustible liquids
Storage stability	Under correct storing conditions the product is stable for at least 12 months.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control parameters
No exposure limit value known.

Exposure controls

General protective and hygiene measures	Observe the usual precautions when handling chemicals. Wash hands before breaks and after work. Do not eat, drink or smoke during work time.
Occupational exposure controls	
Respiratory protection	Breathing apparatus in the event of aerosol or mist formation. Short term: filter apparatus, Filter B
Hand protection	Gloves (alkali-resistant) Appropriate material: Latex KCL Lapren 706 / 0.6 mm / 480 min.
Eye protection	Safety glasses with side protection shield.
Skin protection	Clothing as usual in the chemical industry.

9. PHYSICAL & CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	liquid, clear, colourless to slightly yellow
Odor	odourless
Odor threshold	no data
pH-value	13-14
Melting point/freezing point	no data
Boiling range	appr. 100°C
Flash point	not flammable
Evaporation rate	no data
Flammability (solid, gaseous)	not ignitable
Ignitable, explosive range	no data
Vapour pressure	no data
Vapour density	no data
Density	appr. 1,55 kg/l (at 20°C)
Solubility	completely miscible
Partition coefficient n-octanol/water	not applicable
Self-ignition temperature	no data
Decomposition temperature	no data
Viscosity	appr. 600 mPa.s (at 20°C)
Explosive properties	no data
Oxidising properties	no data
Other information	Not applicable.

10. CHEMICAL STABILITY & REACTIVITY INFORMATION

Conditions to avoid	Protect from frost
Materials to avoid	Acids
Hazardous decomposition products	No hazardous decomposition products known

11. TOXICOLOGICAL INFORMATION

Information is related to the product, data are used as cross reference.

Acute toxicity

Acute oral toxicity	Remarks: The toxicological data shown are those obtained from tests on products of similar composition.
Reference substance	Slilicic acid, sodium salt (Molar ratio Na2O : SiO2 = 1 : 2.0; 40-50%)
Species	rat
LD_{50}	> 2000 mg/kg
Source	data of supplier
Reference substance	Slilicic acid, sodium salt (Molar ratio Na2O : SiO2 = 1 : 3.2-3.4; 35-40%)
Species	rat
LD_{50}	> 2000 mg/kg
Source	data of supplier
Reference substance	Silicic acid, potassium salt (Molar ratio K2O : SiO2 = 1 : 3.9-4.0; 28-30%)
Species	rat
LD_{50}	> 2000 mg/kg
Source	data of supplier

Remarks	The poisonous effect of the product is caused by its alkalinity and not by substance-specific systemic characteristics.

Irritant/corrosive effects

Irritant effect on skin	irritant
Irritant effect on eyes	irritant – risk of serious damage to eyes
Sensitization	non-sensitizing

Effects after repeated or prolonged exposition (subacute, subchronic, cronic).

Experience in practice	Irritating effects on the skin and mucous membrane. Risk of serious damage to eyes.
Other information	When handled appropiately, even after long years of experience with this product, no adverse health effects are known.

12. ECOLOGICAL INFORMATION

Information is related to the product, data are used as cross reference.

Fish toxicity

Remarks	Ecotoxicological data are taken from a similar product of the same type.
Reference substance	Slilicic acid, sodium salt (Molar ratio Na2O : SiO2 = 1 : 3.36; 35%)
Species	Brachidanio rerio
LC_{50}	> 2000 mg/l
Duration of exposure	96 h
Source	data of supplier
Reference substance	Silicic acid, potassium salt (Molar ratio K2O : SiO2 = 1 : 3.9-4.0; 29%)
Species	Leuciscus idus
LC0	> 500 mg/l
Duration of exposure	48 h
Source	data of supplier
Remarks	The ecotoxic effect of the product is mainly due to its alkalinity

Daphnia toxicity

Remarks	Ecotoxicological data are taken from a similar product of the same type.
Reference substance	Slilicic acid, sodium salt (Molar ratio Na2O : SiO2 = 1 : 3.2; 35%)
Species	Daphnia magna
EC0	> 2000 mg/l
Duration of exposure	48 h
Source	data of supplier
Reference substance	Silicic acid, potassium salt (Molar ratio K2O : SiO2 = 1 : 3.9-4.0; 29%)
Species	Daphnia magna
EC0	> 500 mg/l
Duration of exposure	24 h
Source	data of supplier
Remarks	The ecotoxic effect of the product is mainly due to its alkalinity

Bacteria toxicity

Remarks	Ecotoxicological data are taken from a similar product of the same type.
Reference substance	Slilicic acid, sodium salt (Molar ratio Na2O : SiO2 = 1 : 3.36; 35%)
Species	Pseudomonas putida
EC0	> 1000 mg/l
Duration of exposure	48 h
Source	data of supplier
Remarks	The ecotoxic effect of the product is mainly due to its alkalinity

Biodegradability

Remarks	Inorganic product, cannot be eliminated from the water by biological purification processes.

Behaviour in sewers (waste treatment plants):
The product is an alkaline solution. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants. When low concentrations are discharged correctly into adapted biological sewage traetment plants, disturbance of the degradation activity of activated sludge is not likely.

13. DISPOSAL CONSIDERATIONS

Disposal recommendations for the product

EWC waste code: 06 02 05 other bases.
Dilution and neutralization with acid. After solidification (e.g. as CaSiO3 precipitate), landfill in accordance with local authorities. Re-use without reprocessing as long as not solidified.

Disposal recommendations for packaging

Completely emptied packagings can be given for recycling.

14. TRANSPORT INFORMATION

Land transport (ADR/RID)	Not classified as dangerous according to transport regulations
Sea transport (IMDG/GGVSee)	Not classified as dangerous according to transport regulations
Air transport	Not classified as dangerous according to transport regulations

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislations specific for the substance or mixture
Water Hazard Class (Germany): WGK 1

Chemical Safety Assessment

In accordance with REACH Chemical Safety Assessment has not been carried out for the product.

16. OTHER INFORMATION

The information given corresponds with our actual knowledge and experience. This information is meant to describe our product in view of possible safety requirements.

Abbreviations and acronyms:

H- Phrases

H315	Causes skin irritation
H318	Causes serious eye damage

P- Phrases	
P262	Do not get in eyes, on skin, or on clothing
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P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Hazard classes	
Skin Irrit.	Skin irritation
Eye Dam.	Serious eye damage

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification, The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.