



# RetroPlate

## Safety Data Sheet

according to Regulation (EC) No. 453/2010

Revision date: 20/12/2014 Supersedes: 05/02/2007 Version: 2.0

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

#### 1.1. Product identifier

Product form	: Mixture
Trade name	: RetroPlate
EC no	: 215-687-4
CAS No.	: 1344-09-8
Formula	: Si O <sub>2</sub> /Na <sub>2</sub> O
Synonyms	: SODIUM SILICATE / Sodium Silicate / Silicic acid, sodium salt / Sodium silicate glass / Silicic acid, sodium salt / Silicate of soda / Silicic acid, Sodium salt
IUPAC name	: sodium hydroxy(oxo)silanolate
Product group	: Trade product

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

##### 1.2.1. Relevant identified uses

Use of the substance/preparation : Curing agent and densifier, hardener and dustproof for portland cement based concrete

##### 1.2.2. Uses advised against

No additional information available

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

Only representative:  
INTERTEK France  
Etablissement de Chalon Sur Saône  
Espaces Entreprises  
Route de Demigny  
71102 CHALON SUR SAONE France  
Phone : +33 385 99 12 74  
Email : lasf.Reach@intertek.com

Manufacturer:  
Curecrete Chemical Company  
1201 West Spring Creek Place  
Springville, Utah 84663 USA  
Phone: +1 801 489 5663  
www.retroplatesystem.com

#### 1.4. Emergency telephone number

Emergency number : +1-801-629-0667 (24 hours)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aqueous solutions with solids concentration <40% not to be classified according to Regulation 1272/2008 (CLP)

##### Classification according to Directive 67/548/EEC or 1999/45/EC

Aqueous solutions with solids concentration <40% are not to be classified according to Regulation 1999/45/EC

##### Adverse physicochemical, human health and environmental effects

None known

#### 2.2. Label elements

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

No labelling applicable

#### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Silicic acid, sodium salt	(CAS No.) 1344-09-8 (EC no) 215-687-4	35	Xi; R36/38 R37
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Silicic acid, sodium salt	(CAS No.) 1344-09-8 (EC no) 215-687-4	35	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

The classification of soluble silicates depends on the molar ratio (SiO<sub>2</sub>:Na<sub>2</sub>O) of individual products. Molar ratios (MR) define the ratio of SiO<sub>2</sub> versus Na<sub>2</sub>O in the substance. This substance has a MR = 3.3, thus the classification above is based on this value of the molar ratio.

Full text of R-, H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	: Unlikely route of exposure. Remove victim to fresh air.
First-aid measures after skin contact	: Wash off immediately with soap and plenty of water. Seek medical attention if ill effect or irritation develops.
First-aid measures after eye contact	: Rinse immediately and thoroughly, pulling the eyelids away from eyes (15 minutes minimum). Seek medical attention immediately.
First-aid measures after ingestion	: Do not induce vomiting. If swallowed, rinse mouth with water (only if the person is conscious). Drink directly plenty of water or milk. Never give anything by mouth to an unconscious person.

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

- Symptoms/injuries after inhalation : Breathing of atomized mist may cause bronchial irritation (caustic). Symptoms may include burning and itching in nose and throat.
- Symptoms/injuries after skin contact : Repeated or prolonged skin contact may cause dermatitis and defatting, irritation (itching, redness, blistering).
- Symptoms/injuries after eye contact : Symptoms may include stinging, tearing, redness, swelling and blurred vision.

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

Treat symptomatically. High pH, caustic.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media: : Use fire-extinguishing media appropriate for surrounding materials.

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

Fire hazard : Not combustible.

### 5.3. Advice for firefighters

Protective equipment for firefighters : Extra personal protection: complete protective clothing including self-contained breathing apparatus.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear protective clothing as described in Section 8 of this safety data sheet.

Emergency procedures : Avoid contact with skin and eyes. Do not allow to enter drains or water courses. Dilute with plenty of water.

#### 6.1.2. For emergency responders

Protective equipment : Wear protective clothing as described in Section 8 of this safety data sheet.

Emergency procedures : Avoid contact with skin and eyes. Do not allow to enter drains or water courses. Dilute with plenty of water.

### 6.2. Environmental precautions

No additional information available

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

For containment : contain the discharged material. Contain and collect as any solid.

Methods for cleaning up : Contain large spills to maximize product recovery or disposal. Place the adsorbed material into containers and remove to a safe place. Dilute residue with water.

Other information : The diluted reaction product, following reaction on the concrete surface, is generally recognized as safe. If spilled, may cause the floor to be slippery.

### 6.4. Reference to other sections

Refer to sections 8 and 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid breathing dust, mist or spray. Avoid contact with skin, eyes and clothes.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly after handling.

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

Storage condition(s) : Keep container closed when not in use. Store in original container. Store away from freezing (avoid freezing during storage).

Incompatible materials : Aluminum and other light metals and their alloys.

Storage temperature :  $\leq 70$  °C

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Silicic acid, sodium salt (1344-09-8)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1.59 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	5.61 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0.8 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.38 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	0.8 mg/kg bodyweight/day

### 8.2. Exposure controls

Appropriate engineering controls : Use low-pressure sprayer. Avoid the formation of mists in the atmosphere. If generating aerosol cannot be avoided, provide adequate ventilation and exhaust in the work area.

Personal protective equipment : Gloves. Protective goggles.



Hand protection : Wear protective gloves.

Eye protection : Use splash goggles when eye contact due to splashing is possible.

Skin and body protection : Wear suitable protective clothing. Wear long sleeves.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Approved dust or mist respirator should be used if airborne particles are generated when handling this material.

## SECTION 9: Physical and chemical properties

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

Physical state : Liquid

Appearance : viscous liquid.

Colour : yellow.

odour : Odourless.

Odour threshold : No data available

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pH	: 11.3 - 11.6
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Solidification point	: No data available
Boiling point	: 110 °C
Flash point	: Not flammable.
Self ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 23.7 mm Hg (at -4 °C)
Relative vapour density at 20 °C	: 0.999 (at -4 °C)
Relative density	: No data available
Density	: 1.45 - 1.55 (at 20 °C)
Solubility	: Water: ca 100% Material highly soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Not explosive as none of the components is classified as explosive or oxidizing.
Oxidising properties	: None of the components is classified for oxidizing properties.
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

Reacts with aluminum and other light metals and their alloys, with zinc and tin by forming hydrogen peroxide which, together with air, can form explosive mixtures. The product adheres to and etches glass walls. The product decomposes when mixed with acids releasing silicic acid.

### 10.6. Hazardous decomposition products

None known.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Silicic acid, sodium salt (1344-09-8)	
LD50 oral rat	1153 mg/kg
LD50 dermal rabbit	> 4640 mg/kg
ATE (oral)	1153 mg/kg

Skin corrosion/irritation : Not classified  
pH: 11.3 - 11.6

Serious eye damage/irritation : Not classified  
pH: 11.3 - 11.6

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Silicic acid, sodium salt (1344-09-8)	
LC50 fishes 1	3185 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)
EC50 Daphnia 1	216 mg/l (Exposure time: 96 h - Species: Daphnia magna)

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

Silicic acid, sodium salt (1344-09-8)	
BCF fishes 1	(no bioaccumulation expected)

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

Silicic acid, sodium salt (1344-09-8)	
This substance/mixture does not meet the PBT criteria of REACH, annex XIII.	

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<b>Silicic acid, sodium salt (1344-09-8)</b>
This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Comply with applicable local, national and international regulation.  
Waste treatment methods : Recycle product or dispose properly. Containers that cannot be cleaned shall be disposed of in the same manner as the product.  
Additional information : The diluted reaction product, following reaction on the concrete surface, is generally recognized as safe.

## SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

### 14.1. UN number

Not a dangerous good in sense of transport regulations.

### 14.2. UN proper shipping name

Not applicable

### 14.3. Transport hazard class(es)

Not applicable

### 14.4. Packing group

Not applicable

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Special precautions for user

#### 14.6.1. Overland transport

Not applicable

#### 14.6.2. Transport by sea

Not applicable

#### 14.6.3. Air transport

Not applicable

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No Annex XVII restrictions

Contains no REACH candidate substance

Other regulations, restrictions and prohibition regulations : Compliance with following regulations: Regulation (EC) 1272/2008 as amended. Regulation (EC) 1907/2006 as amended. Directive 1999/45/EC as amended. Directive 67/548/EEC as amended.

### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes : All requirements according to Regulation (EC) No 453/2010 were applied.  
Sources of Key data : MSDS. SDS.  
Abbreviations and acronyms : ATE - acute toxicity estimate. CAS - Chemical Abstracts Service. CLP - Classification, Labelling and Packaging. CSR - Chemical Safety Report. EC - European Community. EEC - European Economic Community. PEL - Permissible Exposure Level. REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals. SDS - Safety Data Sheet . vPvB - Very Persistent and Very Bioaccumulative. STEL- Short-Term Exposure Limit . TLV- Threshold Limit Value. PBT - Persistent, Bioaccumulative and Toxic substance. MSDS - Material Safety Data Sheet.  
Other information : The classification of soluble silicates depends on the molar ratio (SiO<sub>2</sub>:Na<sub>2</sub>O) of individual products. The molar ratio of this substance is known to be 3.3. Different molar ratios may cause product to be classified.

Full text of R-, H- and EUH-phrases:

Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Skin Irrit. 2	skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
R36/38	Irritating to eyes and skin.
R37	Irritating to respiratory system.
Xi	Irritant

SDS EU (REACH Annex II)

*This information is based on current state-of-knowledge, and is presented in good faith but without any guarantee. It is the responsibility of the user to ensure that the information is complete and suitable for the specific intended use.*