

# MATERIAL SAFETY DATA SHEET

According to (EC) No 1272/2008, (EC) 1907/2006 (REACH) and Regulation (EU) 2015/830

Date of Issue: 03.01.2019

Revised: 03.01.2019

## Compound Unipol® Coldax

### 1. IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND OF THE COMPANY

Trade name: **Unipol® Coldax**  
General chemical description: mixture natriumsilicate, quartz, water  
Usage: glue for preparing grinding tools  
Company identification: OSBORN GmbH  
Rudolf-Harbig-Weg 10  
42781 Haan/Germany  
Emergency phone: Tel.: +49 (0) 2129-9307-0 Fax : +49 (0) 2129-9307-23  
Contact: sschirpenbach@osborn.de

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

##### Hazard pictograms



GHS05

Signal word Danger

Hazard-determining components of labelling:

Silicic acid, sodium salt, MR > 1,6 < 2,6

##### Hazard statements

H315 Causes skin irritation.

H318 Causes serious eye damage

H372: Causes damage to lungs through prolonged or repeated exposure by inhalation

##### Precautionary statements

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

P 280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): 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.

This product contains more than 10% quartz (respirable).

#### 2.3 Other hazards

##### Results of PBT and vPvB assessment

PBT: Not applicable.

#### 3.1 Substances

CAS No. Description: 1344-09-8 Sodium Silicate solution, sodium salt, MR > 1,6 < 2,6

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Identification number(s):

EC number: 215-687-4

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 1344-09-8 EINECS: 215-687-4 Reg.nr.: 01-2119448725-31-0004	Silicic acid, sodium salt, MR > 1,6 < 2,6 Eye Dam. 1, H318; Skin Irrit. 2, H315	40-50%
CAS 14808-60-7 EINECS 238-878-4	siliciumdioxide SiO <sub>2</sub> > 98%	40-50%

This product contains respirable quartz as an impurity and therefore is classified as STOT RE2 according to criteria defined in the Regulation EC 1272/2008

and does not meet the criteria for classification as harmful according to Directive 67/548/EEC. Depending on the type of handling and use (e.g. grinding, drying), airborne respirable crystalline silica may be generated. Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable crystalline silica dust should be monitored and controlled. This product should be handled with care to avoid dust generation

Regulation EC 1272/2008:



WARNING  
STOT RE2

H373: May cause damage to lung through prolonged or repeated exposure by inhalation.

Classification EU (67/548/EEC) : No classification

This product contains respirable crystalline silica <3%  
respirable crystalline quartz is tied

### Additional information

For the wording of the listed risk phrases refer to section 16.

## 4. FIRST AID MEASURES:

### 4.1 Description of first aid measures

**General information** Immediately remove any clothing soiled by the product.

**After skin contact** Immediately rinse with water.

**After eye contact** Rinse opened eye 15 minutes under running water.

### After swallowing

Rinse out mouth and then drink plenty of water. Call a doctor immediately.

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

No further relevant information available.

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

No further relevant information available.

## 5. FIRE-FIGHTING MEASURES:

### 5.1 Extinguishing media

#### Suitable extinguishing agents

Product itself is not combustible; define extinguishing measures according to neighbouring conditions.

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

No further relevant information available.

### 5.3 Advice for firefighters

**Protective equipment:** No special measures required.



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### 6. ACCIDENTAL RELEASE MEASURES:

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

Particular danger of slipping on leaked/spilled product.

#### 6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

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

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

#### 6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### 7. HANDLING AND STORAGE

#### Handling

##### Precautions for safe handling

No special precautions are necessary if used correctly.

#### 7.1 Information about fire - and explosion protection:

No special measures required.

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

##### Storage

##### Requirements to be met by storerooms and receptacles:

Provide alkali-resistant floor.

Do not use light alloy receptacles.

Suitable material for receptacles and pipes: steel or stainless steel.

Unsuitable material for receptacle: aluminium. Unsuitable material for receptacle: glass or ceramic.

Unsuitable material for receptacle: zinc.

##### Information about storage in one common storage facility:

Do not store together with acids.

##### Further information about storage conditions:

Protect from frost.

storage stability: 12 month

**Storage class** 12 (TRGS 510)

**7.3 Specific end use(s)** No further relevant information available.

### 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION:

#### Additional information about design of technical facilities:

No further data; see item 7.

#### 8.1 Control parameters

##### Ingredients with limit values that require monitoring at the workplace:

Not required.

##### DNELs

Silicic acid, sodium salt:

DNEL dermal - workers, long-term = 1,59 mg/kg bw/d

DNEL inhalation - workers, long-term = 5,61 mg/m<sup>3</sup> bw/d

DNEL dermal - general population, long-term = 0,80 mg/kg bw/d

DNEL inhalation - general population, long-term = 1,38 mg/m<sup>3</sup> bw/d

DNEL oral - general population, long-term = 0,80 mg/kg bw/d

##### PNECs

Silicic acid, sodium salt:

PNEC aqua - freshwater = 7,5 mg/l

**Additional information:** Exposure scenario: see Annex

#### 8.2 Exposure controls



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### Personal protective equipment

#### General protective and hygienic measures

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Respiratory protection:** Not required.

**Protection of hands:** Alkaline resistant gloves

#### Material of gloves

Natural Latex with small amount of polychloroprene Latex. (Lapren, Company KCL)

#### Penetration time of glove material

Value for the permeation: Level □ 6

Indications are based on information by the producer of the gloves resp. literature or derived from similar substances by analogy.

#### Eye protection:

Tightly sealed goggles.

**Body protection:** Alkaline resistant protective clothing

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

Form:	fluid		
Colour:	red or beige		
Odour:	characteristic	Vapour Pressure	n.a.
Melting Point:	n.a.	pH-value:	12,5
Boiling Point:	n.a.	Flammability:	n.a.
Explosive Properties:	none		
oxidising properties:	none		
Relative Density:	approx. 1,8 g/cm <sup>3</sup> at 20°C		
Solubility in / Miscibility with Water:	Fully miscible		

## 10. STABILITY AND REACTIVITY

**10.1 Reactivity** No further relevant information available.

### 10.2 Chemical stability

**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions** Strong exothermic reaction with acids Reacts with light alloys to form hydrogen

**10.4 Conditions to avoid** No further relevant information available.

**10.5 Incompatible materials:** No further relevant information available.

**10.6 Hazardous decomposition products:** No dangerous decomposition products known

## 11 TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

<b>LD/LC50 values relevant for classification:</b>		
<b>1344-09-8 Silicic acid, sodium salt, MR &gt; 1,6 &lt; 2,6</b>		
Oral	LD 50	> 2000 mg/kg (rat)

**Primary irritant effect: Skin corrosion/irritation** Causes skin irritation. **Serious eye damage/irritation** Causes serious eye damage.

#### Respiratory or skin sensitisation

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

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**



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### 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

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

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

## 12 ECOLOGICAL INFORMATION

### 12.1 Toxicity

<b>Aquatic toxicity:</b>	
<b>1344-09-8 Silicic acid, sodium salt, MR &gt; 1,6 &lt; 2,6</b>	
LC50 / 96 h	> 100 mg/l (Brachydanio rerio)

**12.2 Persistence and degradability** No further relevant information available.

### Other information:

Readily eliminable from water.

Inorganic product; biotic degradation not applicable.

**12.3 Bioaccumulative potential** No further relevant information available.

**12.4 Mobility in soil** No further relevant information available.

### Ecotoxicological effects:

**Remark:** No toxicity after neutralization.

### Behaviour in sewage processing plants:

The product is an alkaline solution. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.

### Additional ecological information:

### General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

**12.6 Other adverse effects** No further relevant information available.

### 13.1 Waste treatment methods

### Recommendation

Can be disposed off with rubble after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

### European waste catalogue

Waste catalogue numbers are to be defined according to the AVV-Regulation, specially for application sectors.

### Uncleaned packaging:

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents

## 14. Transport Information

<b>14.1 UN-Number</b> ADR, ADN, IMDG, IATA	Void
<b>14.2 UN proper shipping name</b> ADR, ADN, IMDG, IATA	Void
<b>14.3 Transport hazard class(es)</b> ADR, ADN, IMDG, IATA Class	Void
<b>14.4 Packing group</b> ADR, IMDG, IATA	Void
<b>14.5 Environmental hazards:</b> <b>Marine pollutant:</b>	No
<b>14.6 Special precautions for user</b>	Not applicable.
<b>14.7 Transport in bulk according to</b> <b>Annex II of Marpol and the IBC Code</b>	Not applicable.



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UN "Model Regulation":

Void

### 15. REGULATORY INFORMATION:

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

##### National regulations

**Water hazard class:** water hazard class 1: slightly hazardous for water

**Other regulations, limitations and prohibitive regulations** Chemical Inventories: Europe (EINECS): yes

Australia (AICS): yes

Canada (DSL): yes

US (TSCA): yes

Japan (ENCS): yes

Korea (KECI): yes

China (IECSC): yes

Taiwan (NECI): yes

Philippine (PICCS): yes

New Zealand (HSNO): yes

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out

### 16. OTHER INFORMATIONES:

The product is designed exclusively for professional/industrial application (see product information). This information is based on our level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

#### Relevant phrases

H315 Causes skin irritation. H318 Causes serious eye damage.

**Department issuing MSDS:** Laboratory

#### Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer  
(Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

**\* Data compared to the previous version altered.**

#### Short title of the exposure scenario

Workplace exposure to silicic acid, sodium salt (EC 215-687-4) solutions

#### Sector of Use

Sectors of use [SU]: 3, 22 (including the supplementary SU: 2a, 2b, 4, 5, 6b, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20)

#### Process category



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Process category [PROC]: 1, 2, 3, 4, 5, 6, 7, 8a, 8b, 9, 10, 11, 13, 14, 15, 16, 17, 19, 21, 22, 23, 24, 25, 26

### Environmental release category

Environmental release categories [ERC]: 1, 2, 3, 4, 5, 6a, 6b, 6d, 7, 8a, 8b, 8c, 8d, 8e, 8f, 9a, 9b

**Description of the activities / processes covered in the Exposure Scenario** Manufacture and formulation of the substance as well as industrial and professional uses.

### Conditions of use

**Duration and frequency** Covers frequency up to: daily use, weekly, monthly, yearly.

### Physical parameters

**Physical state** Liquid, Solution, Vapour pressure 0.31 Pa (1165 °C)

### Concentration of the substance in the mixture

Covers percentage substance in the product up to 100 %, unless otherwise stated.

**Used amount per time or activity** No limit.

### Other operational conditions

#### Other operational conditions affecting environmental exposure

No special measures required.

**Other operational conditions affecting consumer exposure** Not required.

#### Other operational conditions affecting consumer exposure during the use of the product

Not applicable.

### Risk management measures

If possible, local exhaust ventilation should be used. In addition, whenever sodium silicate as a substance on its own or in a preparation is handled outside closed systems, suitable personal protective equipment (gloves, goggles, dust masks or respirators) is the preferred and only measure of control.

### Worker protection

Assumes a good basic standard of occupational hygiene is implemented. The work occurs inside as well as outside.

### Organisational protective measures

PROC 1, 2, 3 Use in closed systems. No other specific measures identified.

### Technical protective measures

PROC 7, 11 Provide enhanced general ventilation by mechanical means.

An approved dust mask should be worn if dust is generated during handling. Wear:

Half-face mask (DIN EN 140)/Quarter-face mask (DIN EN 140); Filter type: A/P2 or

better. Wear protective gloves/eye protection.

Gloves: Wear impervious gloves (EN 374).

### Personal protective measures

PROC 4, 5, 6, 8a, 8b, 9, 10, 13, 14, 15, 17, 19, 21, 22, 23, 24, 25, 26 Wear protective gloves/eye protection.

Gloves: Wear impervious gloves (EN 374).

**Measures for consumer protection** No special measures required.

### Environmental protection measures

Not required, as soluble silicates including silicic acid, sodium salt do not meet the criteria for classification as dangerous to the environment according to

67/548/EEC (See Article 14.4 of REACH Regulation).

Furthermore, as high production volume substances, soluble silicates have been reviewed to a great extent for their exposure potential to the environment and the possible risks arising from their release (Van Dokkum et al. 2002, OECD SIDS 2004, HERA 2005, and CEES 2008). It was concluded that soluble silicates are currently of low priority for further work because of their low hazard profile.

**Air** No special measures required.

**Water** No special measures required.

**Disposal measures** Ensure that waste is collected and contained.

**Disposal procedures** Hand over to hazardous waste disposers.

**Waste type** Partially emptied and uncleaned packaging



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**Exposure estimation** When the recommended risk management measures (RMM) and operational conditions (OC) including personal protective equipment (PPE) are used, the exposure to aqueous solutions of silicic acid, sodium salt will be negligible.

RMMs are based on a qualitative risk characterization.

**Consumer** Not relevant for this Exposure Scenario.

#### **Guidance for downstream users**

The implemented RMMs and OCs including PPE will ensure that workers' exposure is reduced in a way that health hazard effects are avoided and that the risk is considered to be adequately controlled.