

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006  
Version 1.0 Revision Date 26.08.2014  
GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifiers

Product name : Sodium silicate solution

Product Number : Z115

Brand : Zeus

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

Identified uses : Restoration, Laboratory chemicals, Manufacture of substances

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

Company : Zentrum für Energie- und Umweltstudien GmbH  
Siemensstraße 19  
I-39100 Bozen

Telephone : +39 0471068190

Fax : +39 0471068191

E-mail address : info@zeus-bz.it

### 1.4 Emergency telephone number

Emergency Phone # : +49 3019240 (Giftnotruf Universitätsmedizin Berlin)

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Skin corrosion (Category 1B)

Specific target organ toxicity - single exposure (Category 3)

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

Causes severe burns. Irritating to respiratory system.

### 2.2 Label elements

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

Pictogram



Signal word : Danger

Hazard statement(s)

H314

Causes severe skin burns and eye damage.

H335

May cause respiratory irritation.

Precautionary statement(s)

P261

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

P280

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

P305 + P351 + P338

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

P310

Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard Statements

none

**According to European Directive 67/548/EEC as amended.**



Hazard symbol(s)

R-phrases

R35

Causes severe burns.

R37

Irritating to respiratory system.

S-phrases

S26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39

Wear suitable protective clothing, gloves and eye/face protection.

S45

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**2.3 Other hazards - none**

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.2 Mixtures**

| Component                    | Classification  | Concentration |
|------------------------------|---|---------------|
| <b>Disodium metasilicate</b> |   |               |
| CAS-No. 6834-92-0            | Skin Corr. 1B; STOT SE 3;<br>H314, H335<br>C, R34 - R37 | 25 - 50 %     |
| EC-No. 229-912-9             |   |               |
| Index-No. 014-010-00-8       |   |               |

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

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**4. FIRST AID MEASURES**

**4.1 Description of first aid measures**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

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

no data available

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**5. FIREFIGHTING MEASURES**

**5.1 Extinguishing media**

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## 5.2 Special hazards arising from the substance or mixture

Sodium oxides, silicon oxides

## 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 5.4 Further information

no data available

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## 6. ACCIDENTAL RELEASE MEASURES

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

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

### 6.2 Environmental precautions

Do not let product enter drains.

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

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

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## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### 7.3 Specific end uses

no data available

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

**Components with workplace control parameters**

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

##### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

|   |                                    |
|---|------------------------------------|
| a) Appearance                                   | Form: liquid<br>Colour: colourless |
| b) Odour  | no data available                  |
| c) Odour Threshold                              | no data available                  |
| d) pH   | 12,5                               |
| e) Melting point/freezing point                 | no data available                  |
| f) Initial boiling point and boiling range      | no data available                  |
| g) Flash point                                  | not applicable                     |
| h) Evaporation rate                             | no data available                  |
| i) Flammability (solid, gas)                    | no data available                  |
| j) Upper/lower flammability or explosive limits | no data available                  |
| k) Vapour pressure                              | no data available                  |
| l) Vapour density                               | no data available                  |
| m) Relative density                             | 1,390 g/cm <sup>3</sup> at 20 °C   |
| n) Water solubility                             | no data available                  |
| o) Partition coefficient: n-octanol/water       | no data available                  |
| p) Autoignition temperature                     | no data available                  |
| q) Decomposition temperature                    | no data available                  |
| r) Viscosity                                    | no data available                  |
| s) Explosive properties                         | no data available                  |
| t) Oxidizing properties                         | no data available                  |

### 9.2 Other safety information

no data available

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

no data available

### 10.3 Possibility of hazardous reactions

no data available

#### 10.4 Conditions to avoid

no data available

#### 10.5 Incompatible materials

Aluminium, Lead, Zinc, Strong oxidizing agents, Strong acids, Tin/tin oxides

#### 10.6 Hazardous decomposition products

Other decomposition products - no data available

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### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

##### Acute toxicity

no data available

##### Skin corrosion/irritation

no data available

##### Serious eye damage/eye irritation

no data available

##### Respiratory or skin sensitization

no data available

##### Germ cell mutagenicity

no data available

##### Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Silicon dioxide)

##### Reproductive toxicity

no data available

##### Specific target organ toxicity - single exposure

no data available

##### Specific target organ toxicity - repeated exposure

no data available

##### Aspiration hazard

no data available

##### Potential health effects

###### Inhalation

May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Causes respiratory tract irritation.

###### Ingestion

May be harmful if swallowed. Causes burns.

###### Skin

May be harmful if absorbed through skin. Causes skin burns.

###### Eyes

Causes eye burns.

##### Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

##### Additional Information

RTECS: Not available

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### 12. ECOLOGICAL INFORMATION

#### 12.1 Toxicity

no data available

#### 12.2 Persistence and degradability

no data available

- 12.3 Bioaccumulative potential**  
no data available
- 12.4 Mobility in soil**  
no data available
- 12.5 Results of PBT and vPvB assessment**  
no data available
- 12.6 Other adverse effects**  
no data available

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**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

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**14. TRANSPORT INFORMATION**

**14.1 UN number**

ADR/RID: 3266

IMDG: 3266

IATA: 3266

**14.2 UN proper shipping name**

ADR/RID: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Disodium metasilicate)

IMDG: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Disodium metasilicate)

IATA: Corrosive liquid, basic, inorganic, n.o.s. (Disodium metasilicate)

**14.3 Transport hazard class(es)**

ADR/RID: 8

IMDG: 8

IATA: 8

**14.4 Packaging group**

ADR/RID: III

IMDG: III

IATA: III

**14.5 Environmental hazards**

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

**14.6 Special precautions for user**

no data available

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**15. REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available

**15.2 Chemical Safety Assessment**

no data available

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**16. OTHER INFORMATION**

**Text of H-code(s) and R-phrase(s) mentioned in Section 3**

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

Skin Corr. Skin corrosion

STOT SE Specific target organ toxicity - single exposure

C Corrosive

R34 Causes burns.

R37 Irritating to respiratory system.

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is

applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. ZEUS and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.zeus-bz.it](http://www.zeus-bz.it) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.