

## Material safety data sheet

According to EU Regulation 1907/2006 in the current version

### Glass containers

#### 1. Identification of the substance/mixture and company

General name : Glass containers (bottles, jars)  
 Chemical family : Sodic calcium glass  
 CAS No. : 65997-17-3  
 EINESCS No. : 266-046-0  
 REACH registration No. : This glass is not subject to registration  
 Utilization: Industrial and professional use  
 Supplier company identification: **Elemental SRL**, Piața Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania  
 Tel/Fax: +40259-436.755, www.elemental.com  
 Emergency: RO: număr național pentru cazuri de urgență: 021 3183606 Institutul de Sănătate Publică București.  
 International emergency number: +49 180 2273-112

#### 2. Hazards Identification

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

Inorganic glass is not classified as dangerous.

##### 2.2 Label elements

No labeling required.

##### 2.3 Other hazards

Glass is not dangerous at normal usage. Processing of glass, damage or breakage can result in sharp edges. This may cause cuts. Processing of glass can result in glass dust.

Acute effects: Respiratory irritation. Chronic effects: Possible pneumoconiosis effects.

Grinding debris and other waste of glass must be disposed consistent with applicable regulations.

#### 3. Declaration of ingredients

##### 3.1 Substances

As the substance glass is not included in the candidate list of substances of very high concern, currently there are no information duties according to article 33 of REACH. However for the production of glass we may use substances, which are on the candidate list and had been included in Annex XIV of the REACH regulation or could be included in future. These powdery substances are not present as such in the final glass; they are fully integrated into the glass matrix through the melting process. Thus they lose their original characteristics

SiO <sub>2</sub>	69÷73 %
Al <sub>2</sub> O <sub>3</sub>	1÷3 %
Na <sub>2</sub> O	11÷14 %
K <sub>2</sub> O	0,3÷1 %

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CaO	8÷11 %
Other components (Ba, Fe, Ti)	< 3 %

#### 3.2 Mixtures

Glass is classified as substance acc. to regulation (EC) No 987/2008 (amending of Reach-Reg.).

#### 4. First aid measures

##### 4.1 Description of first aid measures

###### General information

Glass is no hazardous substance. The following information refer to glass dust and glass splinter which may result from processing or breakage.

**After inhalation** Supply fresh air; consult doctor in case of complaints

**After skin contact** Normally not dangerous. Consult doctor in case of complaints.

**After eye contact** Rinse under running water. Consult doctor in case of complaints.

**After swallowing** Consult doctor

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

none known

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

none

#### 5. Fire fighting measures

##### 5.1 Extinguishing media

no requirements, not flammable

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

None. Glass is noncombustible.

##### 5.3 Advice for firefighters

none

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#### 6. Accidental release measures

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

To pick up broken glass you have to use the usual precautions. You have to aspire and sweep the pieces of glass avoiding to produce powders, put glass fragments inside closed containers. Eliminate the waste in accordance with the law in force for this subject.

##### 6.2 Environmental Precautions: none

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

none

##### 6.4 Reference to other sections

none

#### 7. Handling and storage

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##### 7.1 Precautions for safe handling

Avoid breakage because of injury risk by sharp edges.

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

Store in dry environment. Avoid excessive humidity.

##### 7.3 Specific end use(s)

see section 1.2

#### 8. Exposure controls / personal protection

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##### 8.1 Control parameters

**In case of dust formation**, declaration for FUSED SILICA, CAS-No: 60676-86-0

Regulation Value	TRGS 900 - GERMAN OCCUPATIONAL EXPOSURE LIMIT VALUES ( 01/2006)
Peak limit	0,3 mg / m <sup>3</sup> (EXPOSURE LIMIT VALUE) with reference to the respirable fraction.
Teratogenic	no information
	There is no reason to fear a risk of damage to the developing embryo or foetus when limit value is adhered to

##### 8.2 Exposure controls

Technical measures and appropriate work processes have higher priority than personal protective equipment. Provide adequate ventilation by local exhaust ventilation or ventilation in general.

Adequate assessment tools for verification of effectivity of the protective measures includes methods of measurements as described in "Technischen Regeln für Gefahrstoffe (TRGS) 402.

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The fabrication process changes the silica physical structure from a crystalline to an amorphous state. The contact with the powder produced by cutting or crumbling the glass, could cause irritation to the primary respiratory tracts. The glass products are chemically stable and have got a high resistance against acid and basic attacks. The primary potential risks are the checks produced by the broken containers.

<b>Respiratory Protection</b>	Technical measure: wet grinding/processing, avoid dust formation. If glass dust or particulates are above the national exposure limits use a national approved respirator for dust and fibers.
<b>Hand Protection</b>	Use protective gloves and safety wristbands for protection against cut injuries.
<b>Eye Protection</b>	Use industrial safety glasses that meet national standards.
<b>Personal Protection</b>	Use safety skirting for protection from sharp edges. Wear safety shoes.

**9. Physical and chemical properties**

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**9.1 Information on basic physical and chemical properties****Physical state** solid**Colour** transparent or coloured**Odour** odourless**pH-value** not applicable**Boiling point/boiling range** not applicable**Melting point/melting range** 1450 °C, Transformation temperature according to ISO 7884-8**Flashpoint** not combustible**Combustibility** not combustible**Ignition temperature** none**Auto flammability** none**Danger of explosion** none**Explosive limits upper / lower** none**Oxidizing characteristics** none**Vapour pressure** 0 mm Hg at 20 °C**Density ( 20 °C )** 2,5-2,6 g/ccm**Water solubility** not applicable**Fat solubility** not applicable**n-octanol-water partition coefficient** none**9.2 Other information**

none

**10. Stability and reactivity**

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#### 10.1 Reactivity

Glass is a stable material. Glass is inert to many chemicals, but may react to hot, strong alkaline solutions and with hydrofluoric, fluorosilicic and phosphoric acids. When heated to temperatures above the melting point, metal oxide fumes may be emitted.

Glass is an amorphous, inorganic, usually transparent or translucent substance consisting of a mixture of silicates or sometimes borates or phosphates as glass formers. With additions of modifiers a melt is produced at high temperatures, that cools to a solid state without crystallization.

#### 10.2 Chemical stability

Glass is stable at normal environmental conditions.

#### 10.3 Possibility of hazardous reactions

No hazardous reactions at intended use.

#### 10.4 Conditions to avoid

see section 10.1

#### 10.5 Incompatible materials

see section 10.1

#### 10.6 Hazardous decomposition products

see section 10.1

### 11. Toxicological information

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#### 11.1 Information on toxicological effects

Toxicological data are not available. If the product is correctly used there are no known bad effects for one's health. This is the result of many experiments made over the past years.

### 12. Ecological information

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#### 12.1 Toxicity

The product is not soluble in water and not dangerous for fish and bacteria. The material does not produce dangerous effects on the environment if disposed in accordance to the law concerning this subject.

#### 12.2 Persistence and degradability

unknown

#### 12.3 Bioaccumulative potential

unknown

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#### 12.4 Mobility in soil

unknown

#### 12.5 Results of PBT and vPvB assessment

unknown

#### 12.6 Other adverse effects

unknown

### 13. Disposal considerations

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#### 13.1 Waste treatment methods

Disposal according to local regulations. The product is recyclable if not contaminated by any substance. If contaminated by other materials you have to respect the laws concerning this subject.

### 14. Transport information

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#### 14.1 UN Number

no requirements

#### 14.2 UN Proper Shipping Name

no requirements

#### 14.3 Transport hazard class(es)

no requirements

#### 14.4 Packing group

no requirements

#### 14.5 Environmental hazards

no requirements

#### 14.6 Special precautions for user

no requirements

#### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

no requirements

### 15. Regulatory information

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

##### REACH

Under REACH glass is classified as a „Substance“. According to Appendix V Number 11 of the REACH regulation glass is exempted from registration if specified conditions are met. This glass is not subject to registration.

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**RoHS** This glass does not contain - according to our knowledge - materials in concentrations, whose placing on the market is forbidden in accordance to the current requirements of the European Directive 2011/65/EU.

#### United Nations Globally Harmonized System (UN-GHS) related to safety information.

This information considers also the requirements of the UN-GHS related to safety information.

#### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

#### 16. Additional information

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Glass is not a substance of very high concern (SVHC).

#### 16.1 Disclaimer

This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.