


Goetheglass RESTOVER® TIKANA® RIVULETTA® ARTISTA®

Revision date: **03.03.2022** Revision No: **1,1**
 Print date: **03.03.2022** Replaces version: **1,0**

Material Data Sheet

according to Regulation (EC) No 1907/2006 & UK REACH Regulation

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

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Further trade names

none

REACH-registration status: This substance is exempted according to REACH Article 2 (7) and Annex V.

Substance name: specialty glass, chemical, oxide
 CAS No: 65997-17-3
 EC No: 701-387-5

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

Glass. Reserved for industrial and professional use.

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the Material Data Sheet

Company name: SCHOTT AG
 Street: Hüttenstr. 1
 Place: D-31073 Grünenplan
 Telephone: +49 (0)5187 / 771-0
 Contact person: Dr. Andreas Helmstedt
 e-mail: andreas.helmstedt@schott.com
 Internet: www.schott.com
 Responsible Department: Site Home Tech Grünenplan:
 Telefon: +49 (0)5187 / 771 831

1.4. Emergency telephone number:

+49 (0)6132 / 84463, 24-hour & 7-day service, GBK GmbH

SECTION 2: Hazards identification
2.1. Classification of the substance or mixture
GB CLP Regulation

This substance is not classified as hazardous in accordance with GB CLP Regulation.

2.2. Label elements
Additional advice on labelling

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: none

2.3. Other hazards

This substance does not meet the criteria for classification as PBT or vPvB.

In case of inhalation (particulates and dust):

Irritation to respiratory tract. A repeated, excessive dust exposure can cause pneumoconiosis.

After eye contact (particulates and dust): Do not subject to friction. Risk of serious damage to eyes.

SECTION 3: Composition/information on ingredients
3.1. Substances


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Chemical characterization

specialty glass, chemical, oxide
 CAS No.: 65997-17-3
 EC No.: 701-387-5

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. With unintended use, some of these substances may be released from the matrix and become bioavailable.

The main components of the glass batch are listed as additional information in chapter 16.

Further Information

Substance is complex UVCB.

Composition of mixture according to raw materials, based on the oxides.: SECTION 16: Other information

SECTION 4: First aid measures
4.1. Description of first aid measures
General information

When in doubt or if symptoms are observed, get medical advice.

After inhalation

particulates and dust: Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

particulates and dust: In case of skin reactions, consult a physician.

After contact with eyes

particulates and dust: Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

particulates and dust: Get medical advice/attention.

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

In case of inhalation (particulates and dust):

Irritation to respiratory tract. A repeated, excessive dust exposure can cause pneumoconiosis.

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

Treat symptomatically.

SECTION 5: Firefighting measures
5.1. Extinguishing media
Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

The product itself does not burn. In case of fire may be liberated: Metal oxide smoke, toxic


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5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Knock down dust with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
General advice

Provide adequate ventilation. Use personal protection equipment. Avoid dust formation. Do not breathe dust.

For non-emergency personnel

Use personal protection equipment.

For emergency responders

Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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

Measures to prevent aerosol and dust generation

For cleaning up

Take up mechanically. Do not subject to friction. Treat the recovered material as prescribed in the section on waste disposal.

Other information

Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage
7.1. Precautions for safe handling
Advice on safe handling

Provide adequate ventilation. Use personal protection equipment. Avoid dust formation. Do not breathe dust.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink. Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and clothes.

Further information on handling

No information available.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels

Provide adequate ventilation. Store in a dry place.

Hints on joint storage

Do not store together with: Strong acid, hydrofluoric acid, phosphoric and phosphorous acid, Alkali (lye),

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concentrated

Further information on storage conditions

Protect from moisture.

7.3. Specific end use(s)

Glass. Reserved for industrial and professional use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|------------|---|-----|-------------------|-----------|-----------|--------|
| - | Antimony and compounds except stibine (as Sb) | - | 0.5 | | TWA (8 h) | WEL |
| - | Barium compounds, soluble (as Ba) | - | 0.5 | | TWA (8 h) | WEL |
| 1305-78-8 | Calcium oxide | - | 2 | | TWA (8 h) | WEL |
| - | Dust, inhalable | - | 10 | | TWA (8 h) | WEL |
| - | Dust, respirable | - | 4 | | TWA (8 h) | WEL |
| - | Silica, amorphous, inhalable dust | - | 6 | | TWA (8 h) | WEL |
| - | Silica, amorphous, respirable dust | - | 2.4 | | TWA (8 h) | WEL |
| 13463-67-7 | Titanium dioxide, respirable | - | 4 | | TWA (8 h) | WEL |
| 13463-67-7 | Titanium dioxide, total inhalable | - | 10 | | TWA (8 h) | WEL |

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations. Technical measures and the application of suitable work processes have priority over personal protection equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection.

Hand protection

Wear suitable gloves. (cut-resistant)

Skin protection

Wear suitable protective clothing. Disposal of contaminated protective clothing separately, do not reuse.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Thermal hazards

In case of melting: Wear protective gloves/protective clothing. (heat-resistant)

Environmental exposure controls

Do not allow to enter into surface water or drains.


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SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

| | |
|------------------|---------------------------|
| Physical state: | solid |
| Colour: | No information available. |
| Odour: | odourless |
| Odour threshold: | not determined |

Test method
Changes in the physical state

| | |
|---|-----------------------|
| Melting point/freezing point: | not determined |
| Boiling point or initial boiling point and boiling range: | not determined |
| glass transition temperature: | 525-545 °C ISO 7884-8 |
| Flash point: | not applicable |

Flammability

| | |
|---------------|----------------|
| Solid/liquid: | not applicable |
| Gas: | not applicable |

Explosive properties

The product is not: Explosive.

| | |
|----------------------------|----------------|
| Lower explosion limits: | not applicable |
| Upper explosion limits: | not applicable |
| Auto-ignition temperature: | not applicable |

Self-ignition temperature

| | |
|--------|----------------|
| Solid: | not applicable |
| Gas: | not applicable |

| | |
|----------------------------|----------|
| Decomposition temperature: | > 525 °C |
|----------------------------|----------|

| | |
|-----------|---------------|
| pH-Value: | 10,7 OECD 122 |
|-----------|---------------|

| | |
|----------------------|------------------------|
| Viscosity / dynamic: | not applicable (solid) |
|----------------------|------------------------|

| | |
|------------------------|------------------------|
| Viscosity / kinematic: | not applicable (solid) |
|------------------------|------------------------|

| | |
|-------------------|----------------|
| Water solubility: | not applicable |
|-------------------|----------------|

Solubility in other solvents

Fat: not applicable

| | |
|--|--|
| Partition coefficient n-octanol/water: | The substance is not soluble in water. |
|--|--|

| | |
|------------------|--|
| Vapour pressure: | up to Tg no significant vapor pressure is to be expected |
|------------------|--|

| | |
|----------|-----------------------|
| Density: | 2,5 g/cm ³ |
|----------|-----------------------|

| | |
|--------------------------|----------------|
| Relative vapour density: | not applicable |
|--------------------------|----------------|

9.2. Other information
Information with regard to physical hazard classes

 Oxidizing properties
 Not oxidising.

Other safety characteristics


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Evaporation rate: not applicable

Further Information

softening point: 716 °C

SECTION 10: Stability and reactivity
10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Reacts with: Strong acid, hydrofluoric acid, phosphoric and phosphorous acid, Alkali (lye), concentrated

10.4. Conditions to avoid

Humidity

Temperature > glass transition temperature (Formation of: Metal oxide smoke, toxic)

10.5. Incompatible materials

Strong acid, hydrofluoric acid, phosphoric and phosphorous acid, Alkali (lye), concentrated

10.6. Hazardous decomposition products

Metal oxide smoke, toxic (Temperature > glass transition temperature)

SECTION 11: Toxicological information
11.1. Information on hazard classes as defined in GB CLP Regulation
Acute toxicity

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

The toxicological potential of glasses results from the bioavailability of individual components when used improperly. This is determined by the bioaccessibility test according to Fraunhofer. It is a leaching method of the material performed in 5 artificial body fluids.

Acute oral toxicity: no bioaccessibility detected

Acute dermal toxicity: no bioaccessibility detected

Acute inhalation toxicity: no bioaccessibility detected

Irritation and corrosivity

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

After eye contact (particulates and dust): Irritant effect on the eye:

pH: Test results: refer to section 9.

at pH 5,6 - < 7,3 & > 9,7 - 10,5: Potential hazards: Irritation (GHS/CLP criteria are not met.)

at pH > 2 - < 5,6 & > 10,5 - < 11,5: Potential hazards: Risk of serious damage to eyes. (GHS/CLP criteria are not met.)

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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


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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.

Information on likely routes of exposure

oral, dermal, inhalative, Eye contact

11.2. Information on other hazards
Endocrine disrupting properties

No information available.

Other information

In case of inhalation (particulates and dust):

Irritation to respiratory tract. A repeated, excessive dust exposure can cause pneumoconiosis.

SECTION 12: Ecological information
12.1. Toxicity

The ecotoxicological effect of glasses is determined by the ecological accessibility of hazardous substances that can be released under environmental conditions from the glass matrix. For characterization, the test from the German landfill regulation (Dep-VO) is used. In the evaluation, the leachable hazardous substance content, in relation to the total amount of the per se non-hazardous glass, is treated as a standard mixture proportion and classified accordingly.

Result / evaluation: The product is not: Ecotoxic.

12.2. Persistence and degradability

Inorganic product which is not eliminable from water through biological cleaning processes. The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of UK REACH.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations
13.1. Waste treatment methods
Disposal recommendations

Do not allow to enter into surface water or drains. Neither the product nor the residues from the processing. Dispose of waste according to applicable legislation.

List of Wastes Code - residues/unused products

101112 WASTES FROM THERMAL PROCESSES; wastes from manufacture of glass and glass products; waste glass other than those mentioned in 10 11 11


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List of Wastes Code - used product

101112 WASTES FROM THERMAL PROCESSES; wastes from manufacture of glass and glass products; waste glass other than those mentioned in 10 11 11

Contaminated packaging

Dispose of waste according to applicable legislation.

SECTION 14: Transport information
Land transport (ADR/RID)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

not relevant

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
EU regulatory information

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Water hazard class (D): - - non-hazardous to water


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15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information
Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,6,8,9,11,12,16.

Abbreviations and acronyms

CLP: Classification, labelling and Packaging
 REACH: Registration, Evaluation and Authorization of Chemicals
 GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
 UN: United Nations
 CAS: Chemical Abstracts Service
 DNEL: Derived No Effect Level
 DMEL: Derived Minimal Effect Level
 PNEC: Predicted No Effect Concentration
 ATE: Acute toxicity estimate
 LC50: Lethal concentration, 50%
 LD50: Lethal dose, 50%
 LL50: Lethal loading, 50%
 EL50: Effect loading, 50%
 EC50: Effective Concentration 50%
 ErC50: Effective Concentration 50%, growth rate
 NOEC: No Observed Effect Concentration
 BCF: Bio-concentration factor
 PBT: persistent, bioaccumulative, toxic
 vPvB: very persistent, very bioaccumulative
 ADR: Accord européen sur le transport des marchandises dangereuses par Route
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Regulations concerning the international carriage of dangerous goods by rail
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation
 intérieures)
 IMDG: International Maritime Code for Dangerous Goods
 EmS: Emergency Schedules
 MFAG: Medical First Aid Guide
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organization
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships
 IBC: Intermediate Bulk Container
 SVHC: Substance of Very High Concern
 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

Further Information

Composition of mixture according to raw materials, based on the oxides.:

Substance name: SILICON DIOXIDE
 CAS No.: 7631-86-9
 weight fraction in %: 65 - 75
 SVHC substance.: No.
 Carcinogenicity: No.



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Substance name: SODIUM OXIDE
CAS No.: 1313-59-3
weight fraction in %: 5 - 15
SVHC substance.: No.
Carcinogenicity: No.

Substance name: POTASSIUM OXIDE
CAS No.: 12136-45-7
weight fraction in %: 4 - 10
SVHC substance.: No.
Carcinogenicity: No.

Substance name: CALCIUM OXIDE
CAS No.: 1305-78-8
weight fraction in % 5 - 11
SVHC substance.: No.
Carcinogenicity: No.

Substance name: BARIUM OXIDE
CAS No.: 1304-28-5
weight fraction in % < 4
SVHC substance.: No.
Carcinogenicity: No.

Substance name: ZINC OXIDE
CAS No.: 1314-13-2
weight fraction in %: < 6
SVHC substance.: No.
Carcinogenicity: No.

Substance name: TITANIUM DIOXIDE
CAS No.: 13463-67-7
weight fraction in %: < 2
SVHC substance.: No.
Carcinogenicity: No. (nano= Carc. 2)

Substance name: ANTIMONY TRIOXIDE
CAS No.: 1309-64-4
weight fraction in %: < 1
SVHC substance.: No.
Carcinogenicity: Yes. (Carc. 2)

Occupational exposure limit values, air limit values, Biological limit values: For further specification, refer to section 8 of the SDS.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.