

# SAFETY DATA SHEET



Date of issue/Date of revision 02 October 2017

Version 6

## Section 1. Identification

**Product name** : Magnetic Sputter/Vacuum Deposition (MSVD) Coated Float Glass  
**Product code** : 01050  
**Other means of identification** : This (M)SDS covers all Vitro MSVD Low-E coated glass products including, but not limited to: Sungate® 400, Sungate® 400VT, Sungate® 460, Sungate® 460VT, Solarban® z50, Solarban® z50VT, Solarban® 60, Solarban® 60VTII, Solarban® 67, Solarban® 67VT, Solarban® 70XL, Solarban® 70XLVT, Solarban® 72VT, Solarban® R100VT, Solarban® z75, Solarban® z75VT, Solarban® 90, Solarban® 90VT, Solarphire™ HVM.  
**Product type** : Article

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

**Product use** : Glass.  
**Use of the substance/mixture** : Construction materials (building materials) - Other construction materials  
**Uses advised against** : None identified.

**Manufacturer** : Vitro Flat Glass LLC (Vitro)  
400 Guys Run Road  
Cheswick, PA 15024

**Emergency telephone number** : 1-866-290-7653

**Technical Phone Number** : 1-855-887-6457 (9:00 AM - 4:00PM EST)

## Section 2. Hazards identification

**OSHA/HCS status** : This product is considered an article. The end use is dependent upon the manufactured shape and design, and this article will not pose an exposure hazard under normal conditions.  
Sanding and grinding this article can generate nuisance dust particles.  
Sanding and grinding dusts may be irritating to eyes and respiratory system.

**Classification of the substance or mixture** : Not classified.

### GHS label elements

**Signal word** : No signal word.  
**Hazard statements** : No known significant effects or critical hazards.  
**Precautionary statements**  
**Prevention** : Not applicable.  
**Response** : Not applicable.

## Section 2. Hazards identification

<b>Storage</b>	: Not applicable.
<b>Disposal</b>	: Not applicable.
<b>Supplemental label elements</b>	: None known.
<b>Hazards not otherwise classified</b>	: None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Article
<b>Product name</b>	: Magnetic Sputter/Vacuum Deposition (MSVD) Coated Float Glass
<b>Other means of identification</b>	: This (M)SDS covers all PPG MSVD Low-E coated glass products including, but not limited to: Sungate® 400, Sungate® 400VT, Sungate® 460, Sungate® 460VT, Solarban® z50, Solarban® z50VT, Solarban® 60, Solarban® 60VTII, Solarban® 67, Solarban® 67VT, Solarban® 70XL, Solarban® 70XLVT, Solarban® 72VT, Solarban® R100VT, Solarban® z75, Solarban® z75VT, Solarban® 90, Solarban® 90VT, Solarphire™ HVM.

### CAS number/other identifiers

**CAS number** : 65997-17-3

Ingredient name	%	CAS number
glass, oxide, chemicals	60 - 100	65997-17-3

Composition consisting primarily of oxides of silicon with lesser quantities of other selected oxides common to soda-lime glasses, fused into an amorphous vitreous state.

Note: Glass sheets are typically stacked for shipment and may be separated with less than 1 weight percent of powdered interleaving material consisting of polymeric beads. Exposure to these polymeric beads is not expected to be a concern. MSVD glass may contain TPO (Temporary Protective Overcoat) made of polyvinyl alcohol. TPO is applied only to VT product versions. Exposure to polyvinyl alcohol is not expected to be a concern.

These coated glass products contain less than 0.1% of the following intentionally added metals (specific metals depend on product): silver, tin, zinc, nickel, chromium, aluminum, titanium and/or iron. Activities that generate dust from these coated glass products should be evaluated to determine if any regulatory exposure limits are exceeded. If exposure limits are exceeded for dust/metal, appropriate engineering controls (e.g., ventilation/HEPA filters) and/or personal protective equipment (e.g., respirators) should be provided.

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

### Description of necessary first aid measures

- Eye contact** : (Sanding and grinding dusts) In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Check for and remove any contact lenses.
- Inhalation** : None known.
- Skin contact** : None known.
- Ingestion** : Not a likely route of exposure.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : (Sanding and grinding dusts) No significant irritation expected other than possible mechanical irritation.
- Inhalation** : (Sanding and grinding dusts) May cause slight transient irritation.
- Skin contact** : (Sanding and grinding dusts) No significant irritation expected other than possible mechanical irritation.
- Ingestion** : Not a likely route of exposure.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : No specific fire or explosion hazard.

- Hazardous thermal decomposition products** : No specific data.

## Section 5. Fire-fighting measures

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : No special protection is required.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No special protection is required.

**For emergency responders** : No special protection is required.

**Environmental precautions** : No specific hazard.

### Methods and materials for containment and cleaning up

**Small spill** : Vacuum or sweep up material and place in a designated, labeled waste container.

**Large spill** : Vacuum or sweep up material and place in a designated, labeled waste container.

**Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Take care with items that are sharp or heavy. Any glass can have sharp edges, particularly at a cut or fractured edge. Normal strength glass, also known as annealed or float glass, is known to fracture into large sections with sharp edges. Chemically strengthened or chemically tempered glass and thermally heat-strengthened glass will tend to fracture much the same as normal strength annealed glass, and are not considered safety glazing products. Thermally tempered glass (commonly known as fully tempered glass or safety glazing) will fracture into many smaller pieces still capable of cutting skin, but typically not as severely as would larger fragments from normal strength annealed glass. These safety concerns should be addressed with proper personal protective equipment to protect oneself against any sharp edges, including those formed by accidental glass fracture during handling. Sanding (a.k.a. seaming or edging) any sharp glass edges to produce rounded edges also reduces the hazards with being cut by sharp edges.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in a dry place away from excessive moisture and exhaust fumes from fork trucks or other such equipment. Support glass in cases on both sides when stored vertically. Glass packs and open cases should be stored at a 5° lean angle to prevent glass from falling forward.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Sanding and grinding dusts	<b>OSHA PEL (United States).</b> TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> Form: Respirable TWA: 15 mg/m <sup>3</sup> Form: Total dust <b>ACGIH TLV (United States).</b> TWA: 5 mg/m <sup>3</sup> Form: Inhalable TWA: 3 mg/m <sup>3</sup> Form: Respirable TWA: 10 mg/m <sup>3</sup> Form: Total dust

#### Key to abbreviations

A = Acceptable Maximum Peak	S = Potential skin absorption
ACGIH = American Conference of Governmental Industrial Hygienists.	SR = Respiratory sensitization
C = Ceiling Limit	SS = Skin sensitization
F = Fume	STEL = Short term Exposure limit values
IPEL = Internal Permissible Exposure Limit	TD = Total dust
OSHA = Occupational Safety and Health Administration.	TLV = Threshold Limit Value
R = Respirable	TWA = Time Weighted Average
Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances	

### Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedures** : Not applicable.

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. When grinding for removal of the MSVD coating, inhalation of silver containing coating dust should be prevented by using a localized exhaust ventilation system to remove the silver particulate being removed. The ventilation system should be equipped with a HEPA (High Efficiency Particulate Air) filter with efficiency greater than 99.9%.

**Environmental exposure controls** : Not applicable.

### Individual protection measures

**Hygiene measures** : Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety glasses with side shields.

#### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

## Section 8. Exposure controls/personal protection

<b>Gloves</b>	: Rubber dipped anti-lacerative gloves are recommended.
<b>Body protection</b>	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Other skin protection</b>	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Respiratory protection</b>	: (Sanding and grinding dusts) If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Solid.
<b>Color</b>	: Clear./Colorless. to tinted
<b>Odor</b>	: Odorless.
<b>Odor threshold</b>	: Not applicable.
<b>pH</b>	: Not applicable.
<b>Melting point</b>	: 704°C (1300°F) (softening point)
<b>Boiling point</b>	: Not applicable.
<b>Flash point</b>	: Closed cup: Not applicable. [Product does not sustain combustion.]
<b>Auto-ignition temperature</b>	: Not applicable
<b>Decomposition temperature</b>	: Not applicable.
<b>Flammability (solid, gas)</b>	: Not applicable
<b>Lower and upper explosive (flammable) limits</b>	: Not applicable.
<b>Evaporation rate</b>	: Not applicable.
<b>Vapor pressure</b>	: Not applicable.
<b>Vapor density</b>	: Not applicable.
<b>Relative density</b>	: 2.45
<b>Density ( lbs / gal )</b>	: 20.45
<b>Solubility</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not applicable.
<b>Viscosity</b>	: Not Applicable
<b>Volatility</b>	: 0% (w/w)
<b>% Solid. (w/w)</b>	: 100

### Aerosol product

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Not applicable.
<b>Conditions to avoid</b>	: No specific data. Refer to protective measures listed in sections 7 and 8.
<b>Incompatible materials</b>	: No specific data.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Irritation/Corrosion

##### Conclusion/Summary

**Skin** : No known significant effects or critical hazards.

**Eyes** : No known significant effects or critical hazards.

**Respiratory** : No known significant effects or critical hazards.

#### Sensitization

##### Conclusion/Summary

**Skin** : No known significant effects or critical hazards.

**Respiratory** : No known significant effects or critical hazards.

#### Mutagenicity

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Carcinogenicity

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Reproductive toxicity

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Teratogenicity

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

## Section 11. Toxicological information

**Target organs** : (Sanding and grinding dusts) Contains material which may cause damage to the following organs: upper respiratory tract, skin, eyes.

**Aspiration hazard**

Not available.

**Information on the likely routes of exposure**

**Potential acute health effects**

- Eye contact** : (Sanding and grinding dusts) No significant irritation expected other than possible mechanical irritation.
- Inhalation** : (Sanding and grinding dusts) May cause slight transient irritation.
- Skin contact** : (Sanding and grinding dusts) No significant irritation expected other than possible mechanical irritation.
- Ingestion** : Not a likely route of exposure.

**Over-exposure signs/symptoms**

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Conclusion/Summary** : Not applicable.

**Short term exposure**

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

**Long term exposure**

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

**Potential chronic health effects**

- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Not available.



## Section 12. Ecological information

### Toxicity

Not available.

### Persistence and degradability

Not available.

### Bioaccumulative potential

Not available.

### Mobility in soil

Soil/water partition coefficient ( $K_{oc}$ ) : Not available.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Glass products with MSVD coatings and silver containing dusts generated during grinding removal of the MSVD coating may be recycled. The disposal requirements for waste dust should be based upon testing conducted in accordance with federal, provincial, state, and local requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

## 14. Transport information

	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class (es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

### Additional information

DOT : None identified.

IMDG : None identified.

IATA : None identified.

Product code 01050

Date of issue 02 October 2017 Version 6

Product name Magnetic Sputter/Vacuum Deposition (MSVD) Coated Float Glass

## 14. Transport information

Special precautions for user : -

## Section 15. Regulatory information

### United States

United States inventory (TSCA 8b) : All components are listed or exempted.

U.S. Federal regulations :

#### SARA 302/304

SARA 304 RQ : Not applicable.

#### Composition/information on ingredients

No products were found.

#### SARA 311/312

Classification : Not applicable.

#### Composition/information on ingredients

No products were found.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health : 0 Flammability : 0 Physical hazards : 0

(\* ) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

### National Fire Protection Association (U.S.A.)

Health : 0 Flammability : 0 Instability : 0

Other information : *Solarphire* is a trademark of PPG Industries Ohio, Inc.

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Date of previous issue : 11/23/2016

Organization that prepared the MSDS : EHS

Key to abbreviations : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container

## Section 16. Other information

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

 Indicates information that has changed from previously issued version.

### Disclaimer

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