



# GLASS BEADS SAFETY DATA SHEET

## TYPE 1,2,3,4

Revision 7-9-19

### 1. Identification

**Product identifier** Ozark Type 1, 2, 3, and 4  
**Synonyms** Glass Beads, GLASS, OXIDE  
**Recommended use** Traffic Markings  
**Recommended restrictions** None known  
**Manufacturer/Supplier** Ozark Materials, LLC  
591 Glendale Ave.  
Greenville, AL 36037

**Emergency Response** CHEMTREC  
**Phone Number** 800-424-9300

### 2. Hazard(s) Identification

#### GHS CLASSIFICATION

**Classification of the substance or mixture** Not classified as hazardous according to GHS standards.  
**Health Hazards:** The substance does not meet the criteria for classification.

#### Environmental

**Acute Toxicity** None Known

**Chronic Toxicity** None Known

**Physical hazards** The substance does not meet the criteria for classification.

#### Label elements

**Signal word** NONE

**Hazard statements** The substance does not meet the criteria for classification.

#### Precautionary statements

**Prevention** P201+P202: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

**Response** P280: Wear protective gloves/protective clothing/eye protection/face protection.

P304: **IF INHALED:** Remove person to fresh air and Keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

P305: **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P302+P352+P363: **IF ON SKIN:** Wash with plenty of water. Wash contaminated clothing before reuse.

**Storage** P402+P403+P404: Store in a dry place. Store in a well ventilated place.  
Store in a closed container.

**Disposal** P501: Dispose of contents/ container to an approved waste disposal plant.

**Hazard(s) not otherwise classified (HNOC)** Spilled material is extremely slippery.

### 3. Composition/Information on Ingredients

Chemical Name (Common / Other Names)	CAS number	%
Glass. Oxides, Chemicals	65997-17-3	>99%

*The criteria for listing components in the composition are as follows: Carcinogens are listed when present at 0.1% or greater; components, which are otherwise hazardous according to OSHA, are listed when present at 1.0% or greater. Non-hazardous components may be listed at 3.0% or greater if not*

proprietary in nature. This is not intended to be complete compositional disclosure. Refer to Section 15 for applicable states right-to-know and other regulatory information.

#### 4. First-Aid Measures

<b>Inhalation</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
<b>Skin contact</b>	Wash off with soap and plenty of water. Remove Contaminated Clothing and shoes. Get medical attention if Irritation occurs. Wash clothing before reuse. Thoroughly clean shoes before reuse.
<b>Eye contact</b>	Flush eyes with water as a precaution.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Rinse mouth with water.
<b>Chronic (long-term) effects</b>	Not Known

#### 5. Fire-Fighting Measures

<b>Suitable extinguishing media</b>	This material is compatible with all extinguishing media. Extinguish preferably with dry chemical, foam or water spray.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	Silicon oxides
<b>Special protective equipment and precautions for firefighters</b>	A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Spilled material is extremely slippery. Wear rubber boots with slip-resistant soles.

#### 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Spilled material can be very slippery. Wear rubber boots with slip-resistant soles. See Section 8 of the SDS for Personal Protective Equipment.
Methods and materials for containment and cleaning up	Collect mechanically and dispose of according to Section 13. Transfer to a lidded container for disposal or recovery. Avoid dust generation. Ensure adequate ventilation. Do not walk through spilled material.

#### 7. Handling and Storage

<b>Precautions for safe handling</b>	Avoid contact with skin, eyes, and clothing. Wash hands before eating, drinking or smoking. Avoid accumulation of dust. Use only in well-ventilated areas.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in the original container in a cool, dry, well-ventilated area. Keep containers tightly sealed. Incompatible Materials: Dissolves in hydrofluoric acid.

#### 8. Exposure Controls/Personal Protection

##### Occupational exposure limits

##### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Glass. Oxides, Chemicals (CAS No. 65997-17-3)	PEL (TWA)	15 mg/m <sup>3</sup> (total dust), 5 mg/m <sup>3</sup> (respirable)

##### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Glass, Oxides, Chemicals	8-hour TWA	5 mg/m <sup>3</sup> (respirable)

(CAS No. 65997-17-3)

**US. OSHA Table Z-3 Mineral dusts (29 CFR 1910.1000)**

Respirable fraction greater than  
5% SiO<sub>2</sub>

%SiO<sub>2</sub> + 2 mg/m<sup>3</sup>

**US. OSHA Table Z-2 (29 CFR 1910.1000)**

None of the components in this product is listed

**US. ACGIH Threshold Limit Values**

Components	Type	Value
Glass. Oxides, Chemicals (CAS No. 65997-17-3)	TLV	10 mg/m <sup>3</sup> (inhalable) 3 mg/m <sup>3</sup> (respirable)

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Glass. Oxides, Chemicals (CAS No. 65997-17-3)	REL (TWA)	TWA 3 fibers/cm <sup>3</sup> (fibers ≤ 3.5 μm in diameter & ≥ 10 μm in length) TWA 5 mg/m <sup>3</sup> (total)

**Appropriate engineering controls**

**Individual protection measures, such as personal protective equipment**

**Eye/face  
protection**



Avoid eye contact. Wear safety glasses with side shields (or goggles).

**Skin protection  
Hand  
protection**



Wear protective gloves.

Suitable gloves can be recommended by the glove supplier.

**Other**

Wear suitable protective clothing.

**Respiratory  
protection**



Avoid breathing dust. Assess exposure concentrations of all materials involved in the workplace. If concentrations exceed the exposure limits listed in Exposure Guidelines or irritation or other symptoms experienced, follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and Chemical Properties**

**Appearance**

**Physical state**

Solid

**Form**

Glass Bead

**Colors**

Colorless

**Odor**

Odorless

**Odor threshold (ppm)**

Not Available

**pH**

No data available

**Melting point/freezing point**

Approximately 730° C (1346°F)

**Initial boiling point and boiling range**

No data available

**Flash point**

Not combustible

**Evaporation rate**

No data available

<b>Flammability (solid, gas)</b>	
<b>Flammability limit - lower (%)</b>	No data available
<b>Flammability limit - upper (%)</b>	No data available
<b>Explosive limit - lower (%)</b>	No data available
<b>Explosive limit - upper (%)</b>	No data available
<b>Vapor pressure</b>	No data available
<b>Vapor density</b>	No data available
<b>Relative density (Specific gravity)</b>	2.4--2.6
<b>Refractive index</b>	≥1.5
<b>Spherical beads (%)</b>	>70
<b>Solubility (water)</b>	Insoluble
<b>Partition coefficient (n-octanol/water)</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Volatile Organic Compounds</b>	No data available
<b>Sieve Analysis</b>	

<b>Type 1</b>	<b>Mesh (Micrometer)</b>	<b>Percent Passing (%)</b>
	1180	100
	850	95-100
	600	75-95
	300	15-35
	150	0-5
<b>Type 2</b>	<b>Mesh (Micrometer)</b>	<b>Percent Passing (%)</b>
	1180	100
	850	90-100
	600	50-75
	425	15-45
	300	0-15
	180	0-5
<b>Type 3</b>	<b>Mesh (Micrometer)</b>	<b>Percent Passing (%)</b>
	1700	100
	1400	95-100
	1180	80-95
	1000	10-40
	850	0-5
	710	0-2
<b>Type 4</b>	<b>Mesh (Micrometer)</b>	<b>Percent Passing (%)</b>
	2000	100
	1700	95-100
	1400	80-95
	1180	10-40
	1000	0-5
	850	0-2

## 10. Stability and Reactivity

<b>Reactivity</b>	Not generally reactive under normal conditions
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing
<b>Conditions to avoid</b>	No data available
<b>Incompatible materials</b>	Dissolves in hydrofluoric acid.
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions. - silicon oxides Other decomposition products - No data available

## 11. Toxicological Information

### Information on likely routes of exposure

<b>Ingestion</b>	Do not ingest. May cause discomfort if swallowed.
<b>Inhalation</b>	Dust may irritate respiratory system. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Dust or powder may irritate the skin.
<b>Eye contact</b>	Particulates may cause irritation to the eyes.

**Symptoms related to the physical, chemical & toxicological characteristics** Dusts may irritate the respiratory tract, skin and eyes.

### Delayed & immediate effects & chronic effects from short-& long-term exposure

**Delayed & immediate effects** Causes eye irritation. May cause respiratory irritation.  
**& chronic effects from short-& long-term exposure** May cause transient irritation.

### Numerical measures of toxicity

Components	Test	Species	Test Results
Glass, Oxides, Chemicals (CAS No. 65997-17-3)	Oral LD50	Rat	> 2000 mg/kg
	Inhalation LC50	Rat	No Data
<b>Skin corrosion/irritation</b>	May be irritating to the skin.		
<b>Serious eye damage/eye irritation</b>	May be irritating to eyes.		
<b>Respiratory or skin sensitization</b>			
<b>Respiratory sensitization</b>	No data available		
<b>Skin sensitization</b>	No data available		
<b>Germ cell mutagenicity</b>	No data available		

### Carcinogenicity

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Not classifiable as to carcinogenicity to humans

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not Listed

**Reproductive toxicity** No data available

**Specific target organ toxicity -single exposure** Not classified.

**Specific target organ toxicity -repeated exposure** Not classified.

**Aspiration hazard** No data available

## 12. Ecological Information

### Numerical measures of toxicity

Components	Test	Species	Test Results
Glass, Oxides, Chemicals (CAS No. 65997-17-3)	Crustacea EC50	Water flea (Daphnia magna )	>1,000 mg/l 72 Hours

<b>Toxicity</b>	No known reports of ecotoxicity to the environment
<b>Persistence and degradability</b>	Persistent but inert in aquatic systems.
<b>Bioaccumulative potential</b>	The product will not bioaccumulate up the food chain.
<b>Mobility in soil</b>	Sinks in water. Insoluble in water.
<b>Results of PBT and vPvB Assessment</b>	No Data
<b>Other adverse effects</b>	None known

## 13. Disposal Considerations

**Disposal instructions** Disposed material is not a hazardous waste. Disposal should be in accordance with local, state or national legislation.

### Hazardous waste code

**US RCRA Hazardous Waste U List** Not Applicable

**Contaminated packaging**

Container must be disposed of in accordance with local, state and national regulations. Containers must not be punctured or destroyed by burning, even when empty.

## 14. Transport Information

<b>DOT, IATA, and IMDG</b>	Not regulated as dangerous goods.
<b>UN number</b>	None
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	None
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling. Spilled material is extremely slippery:

## 15. Regulatory Information

**US federal regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpart. D)**

Not regulated

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

None of the components in this product are regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****SARA Title III Classification:**

<b>Hazard categories</b>	<b>Immediate Hazard:</b> No	<b>Pressure Hazard:</b> No
	<b>Delayed Hazard:</b> No	<b>Reactivity Hazard:</b> No
	<b>Fire Hazard:</b> No	

**SARA 302 Extremely hazardous substance** None of the components in this product are listed. No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 304 Emergency release notification** Not Regulated

**SARA 311/312 Hazardous chemical** No SARA Hazards

**SARA 313 (TRI reporting)** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

No components in this product is listed.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

No components in this product is listed.

**Safe Drinking Water Act (SDWA)** No components in this product is listed.

**US State regulations****Massachusetts RTK - Substance List**

Glass, Oxide, Chemicals (CAS 65997-17-3)

**New Jersey Worker and Community Right-to-Know Act**

Glass, Oxide, Chemicals (CAS 65997-17-3)

**Pennsylvania Worker and Community Right-to-Know Law**

Glass, oxide, Chemicals, non-fibrous , CAS No. 65997-17-3

**US. California Proposition 65**

**Carcinogens & Reproductive Toxicity (CRT): Substance List** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**Canada regulations**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR).

<b>WHMIS Classifications of Substances:</b>	Not Listed
<b>Canada (DSL/NDSL):</b>	Not Listed
<b>Canada Ingredient Disclosure List (CIDL)</b>	Not Listed
<b>Canada 2004 / 2005 NPRI (National Pollutant Release Inventory):</b>	Not Listed
<b>Canada CEPA - Greenhouse Gases Subject to Mandatory Reporting</b>	Not Listed
<b>Canada - CEPA - Priority Substances List</b>	Not Listed

#### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemical List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

### 16. Other Information, Including Date of Preparation or Last Revision

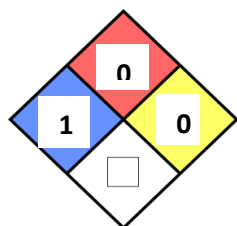
**Issue date** 07-09-2019

**Revision date**

**Version #** 1

**NFPA 704**

**Ratings**



**Color-Code**

Health Hazard (Blue)  
 Flammability (Red)  
 Health Hazard (Yellow)  
 Special Hazards (White)

**Numeric Scale**

4-Severe Hazard  
 3-Serious Hazard  
 2-Moderate Hazard  
 1-Slight Hazard  
 0-Minimal Hazard

**References**

ACGIH: Documentation of the Threshold Limit Values and Biological Exposure indices  
 ECHA: European Chemicals Agency  
 HSDB: Hazardous Substances Data Bank  
 IARC: International Agency for Research on Cancer  
 NIOSH: The National Institute for Occupational Safety and Health  
 NTP: National Toxicology Program  
 NLM: Hazardous Substances Data Base  
 OECD : Organization for Economic Co-operation and Development  
 OSHA: Occupational Safety and Health Administration

### **Disclaimer**

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