GLASS BEADS
for all sizes and types

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Standard Beads, Blends, Megalux® Glass Beads
PRODUCT USE: Reflective, grinding, blasting, decorative and filling beads - road marking materials - drop on materials
SUPPLIER / MANUFACTURER: Swarco Reflex, Inc.
PO Box 1558 - 900 N. Denton St.
Mexia, TX 76667     Ph.: (254) 562-9879    Fax: (254) 562-7601
Swarco Industries Inc.
270 Rutherford Lane
Columbia, TN 38402    Ph.: (931) 388-5900    Fax: (931) 388-4039
EMERGENCY: 1-800-535-5053
Website: www.swarco.com/americas

SECTION 2 - HAZARDS IDENTIFICATION

Classification of the substance or mixture
Glass beads are not considered to be hazardous by the EPA under 29 CFR 1910.1200 and the Federal Register, Vol. 51, No. 221, pp 41582-41594. The RCRA status in unused material is not hazardous according to the list of CERCLA chemical. It is not on the toxic chemical list in the Committee Print Number 99-169.

Classification according to Regulation (EC) No 1272/2008 (CLP)
This mixture does not meet the criteria for classification in accordance with Regulation No. 1272/2008/EC.

Classification according to Directive 1999/45/EC (DPD)
This mixture does not meet the criteria for classification in accordance with Directive 1999/45/EC.

GHS LABEL: Labelling according to Regulation (EC) No 1272/2008 (CLP)
Not required
SIGNAL WORD: WARNING!

Hazard Statements
- Dust can cause irritation to the cornea and conjunctiva.
- Causes mild skin irritation. Localized redness, pruritus and/or pain. May cause irritation by the inhalation of dust.

Precautionary Statements
- Overexposure may cause temporary respiratory irritation.
- The product enters directly through the oral or nasal cavity.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>EINECS#</th>
<th>REACH (Pre-registration Number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass Oxide - Soda Lime Glass</td>
<td>65997-17-3</td>
<td>266-046-0</td>
<td></td>
</tr>
<tr>
<td>SiO2 (68-75%), Na2O (12-18%), CaO (7-12%), MgO (0-5%), Al2O3 (0-2.5%)</td>
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</tbody>
</table>

SECTION 4 - FIRST AID MEASURES

Contact with eyes: Remove contact lenses, if present and easy to do. Continue rinsing, irrigate copiously with clean, fresh water for at least 10 minutes, holding eyelids apart. Do not rub affected area.
Skin contact: Wash hands after handling beads and before eating. If skin irritation or rash occurs; get medical advice/attention.
Inhalation: If existing respiratory/conditions are aggravated in your use of this product, get to well ventilated area. If conditions persist seek medical advice/attention.
Ingestion: Rinse mouth with water (only if the person is conscious).

SECTION 5 - FIREFIGHTING MEASURES

Suitable Extinguishing Media: This product does not burn.

HMIS    NFPA  0-Minimal

SDS-SW-0214
SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions:
Wear gloves as required per job and Safety Glasses or Goggles for eye protection.

Environmental precautions:
Knock down dust with water spray.

Methods for Clean up:
Vacuum or sweep up excess material to avoid a possible slipping hazard.

Materials NOT to be used for Clean up:
Do not use compressed air for clean up.

Reference to other sections:
Personal protective equipment: see section 8, Disposal considerations: see section 13.

SECTION 7 - HANDLING AND STORAGE

Handling:
Don’t use a brush or compressed air for cleaning surfaces or clothing. Avoid the release and swirling of dust. Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and PPE before entering eating areas.

Storage:
When not in use, keep containers tightly closed. Store in a dry place. Removal of dust deposits (control of dust).

SECTION 8 - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

Occupational exposure limit values (Workplace Exposure Limits)

<table>
<thead>
<tr>
<th>Country (Identifier) - Source</th>
<th>Dust, particles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA [mg/m³]</td>
</tr>
<tr>
<td>GB (WEL) - aac. to “EH40/2005”</td>
<td>10 (i) / 4 (r)</td>
</tr>
<tr>
<td>KR (EL) - acc. to “MoEL”</td>
<td>10</td>
</tr>
<tr>
<td>TW (PEL) - acc. to “CLA”</td>
<td>10 (i) / 5 (r)</td>
</tr>
</tbody>
</table>

Notation
i inhalable fraction
r respirable fraction
* this OEL value corresponds to that of other listed phthalates

US (Untied States) ** Conforms with all requirements of the (RCRA) Resource Conservation and Recovery Act of 1976 and the Federal Highway Administration MAP-21 “for heavy metals requirements for road markings”

GB (Great Britain) WEL: Workplace Exposure Limits
EH40/2005 Workplace exposure limits, Table 1: List of approved workplace exposure limits (as consolidated with amendments December 2011) (http://www.nationalarchives.gov.uk/doc/open-government-license/)

KR (Korea, Republic of) EL: Exposure Limit
MoEL: Ministry of Employment and Labor “Exposure limits of chemicals and physical agents”

TW (Taiwan) PEL (Permissible Exposure Limits of hazardous substances in air)
CLA: Council of Labor Affairs “Standards of permissible exposure limits of airborne hazardous substances in workplace”

Appropriate engineering controls
Don’t use a brush or compressed air for cleaning surfaces or clothing. Regular cleaning of work area. Use a vacuum cleaner fitted with an HEPA filter.

Individual protection measures (personal protective equipment)

Eye/face protection
Use safety glasses or goggles with side protection.

Skin protection

· hand protection
Wear protective gloves

· other protection measures
Wash hands thoroughly after handling. Wear suitable working clothes.

Respiratory protection
Use respiratory protection for dust-intensive work: NIOSH approved dust respirator or dust mask; Filtering half-face mask

Unsuitable Extinguishing Media: None
Exposure Hazards: None
Combustion Products: None
Protection for Firefighters: Filtering half-face mask (EN 149), P3 (filters at least 99.95% of airborne particles. 4-Severe
Environmental exposure controls
Control of dust. Use of compressed air to clean clothes prohibited.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: solid (spherical)  Odor Threshold: not applicable
Odor: Odorless  Boiling Range: not applicable
pH: not applicable  Evaporation Rate: not applicable
Melting / Freezing Point: >2000° F, 1400° C, transition temperature: 1166° F, 630° C.  Flammability: not applicable
Boiling Point: not applicable  Flammability Limits: LEL: not applicable, UEL: not applicable
Flash Point: not applicable  Vapor Pressure: not applicable
Specific Gravity: 2.4 - 2.6 g/cm³  Explosive properties: not applicable
Solubility: insoluble  Oxidizing properties: not applicable
Auto-ignition Temperature: not applicable  Bulk density: 1.2 - 1.8 g/cm³
VOC Content: not applicable (depending on the grain size)

SECTION 10 - STABILITY AND REACTIVITY

Stability: There are no conditions to avoid.
Hazardous decomposition products: Decomposition as a result of use, storage, spill and heating are not known.
Conditions to avoid: There are no specific conditions known which have to be avoided.
Incompatible Materials: There is no additional information.

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, Ingestion
Acute symptoms and effects:
  Inhalation: Shall not be classified as a respiratory or aspiration hazard.
  Skin Contact: Shall not be classified as a skin sensitizer.
  Ingestion: Shall not be classified as a specific target organ toxicant (STOT).
Chronic (long-term) effects: This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

SECTION 12 - ECOLOGICAL INFORMATION

Eco toxicity: Shall not be classified as hazardous to the aquatic environment (acc. To 1272/2008/EC).
Mobility: Data are not available
Degradability: Data are not available
Bioaccumulation: Data are not available

SECTION 13 - WASTE DISPOSAL CONSIDERATIONS

Glass beads may be disposed in a solid waste landfill if permitted by applicable Federal, State, and Local Regulation. Considered non-hazardous waste in accordance with Article 3 (2) in conjunction with Annex III of Directive 2008/98/EC.
Follow local and national regulations. Consult disposal expert.

SECTION 14 - TRANSPORT INFORMATION

Proper Shipping Name: Not relevant (not subject to transport regulations)
Hazard Class: not relevant  EXCEPTION for Ground Shipping
Secondary Risk: not relevant  DOT Limited Quantity:
Packaging Group: not relevant  Consumer Commodity:
Identification Number: Overseas shipment only (HF tariff classification) - 7018.20
Label Required: not relevant
Marine Pollutant: none (non-environmentally hazardous acc. to the dangerous good regulation)

SECTION 15 - REGULATORY INFORMATION

Precautionary Label Information: see section 2
Ingredient Listings: see section 3
Symbols: see section 8
Risk Phrases: see section 2
Safety Phrases: see section 2
Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute of Occupational Safety and Health</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal Protective Equipment</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorization and Restriction of Chemicals</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response, Compensation, and Liability Act</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>DPD</td>
<td>Dangerous Preparations Directive (1999/45/EC)</td>
</tr>
<tr>
<td>GHS</td>
<td>“Globally Harmonized System of Classification and Labelling of Chemicals” developed by the United Nations</td>
</tr>
</tbody>
</table>

Key literature references and sources for data
- OSHA 29 CFR 1910.1200 appendix D
- EPA under Federal Register, Vol. 51, No. 221, pp 41582 - 41594
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)

Classification procedure
Physical and chemical properties: The classification is based on tested mixture.
Health hazards/Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Disclaimer
All information and data appearing on this Safety Data Sheet are provided in good faith and are believed to be reliable and accurate to the best of our knowledge at the date of publication. Although certain hazards are listed herein, there is no guarantee that these are only risks. None of the provided information is to be considered a warranty or quality specification or all-inclusive and is given only as a guidance. It is the user's responsibility to determine the safety of use, handling, storage, transportation, disposal, and suitability for the intended utilization of the product. Unless otherwise specified, the data provided herein is valid only for the described material and may not be applicable for the product used in combination with any other materials or processes. Swarco / Colorado Paint Company shall not be liable for any damages resulting from handling, contact, use, or inability to use of this product. No guarantee, expressed or implied, is made by Swarco / Colorado Paint Company and the user assumes all risk and responsibility.

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