SECTION 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product identifier(s): Moonshine® Colour Travel - Gold Variants

Product Name(s): Gold Red Violet – Rose Gold Shimmer, Red Violet Blue – Gold Variant Shimmer, Violet Blue Green - Gold Variant Shimmer, Blue Green Gold - Gold Variant Shimmer

Product Code(s): GFE-GRV-GLD, GFE-RVB-GLD, GFE-VBG-GLD, GFEBGG-GLD

Other means of identification: Calcium Sodium Borosilicate, Calcium Aluminum Borosilicate, Moonshine® Glassflake

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

- Use of the substance/mixture: Industrial uses, cosmetic uses as a decorative filler

1.3 Details of the supplier of the safety data sheet

- Name of Supplier: Glassflake Ltd
- Address of Supplier: Donisthorpe Street, Hunslet, Leeds, LS10 1PL
- Telephone: +44 (0) 113 2703615
- Fax: +44 (0) 113 2718750
- Email: Info@glassflake.com

1.4 Emergency telephone number

- Emergency Telephone: +44 (0) 1652 642124

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Product identification: Mixture

Not classified as hazardous or dangerous.

2.2 Label elements

Not applicable.

2.3 Other hazards

Depending on the type of handling and use, airborne glass fiber dusts can be generated.
The product should be handled with care to avoid airborne fiber dust generation, wear appropriate PPE and use extraction systems.

SECTION 3 Composition/information on ingredients

Chemical Name	CAS No	%	Classification	Type
Calcium Sodium Borosilicate	65997-17-3	40 – 95	Not classified	(A)
Amorphous Silica	7631-86-9	5 – 30	Not classified	(A)
Titanium Dioxide	13463-67-7	2 – 25	Not classified	(A)
Tin Oxide	18282-10-5	0 – 1	Not classified	(A)
Iron Oxide	1309-37-1	4 - 6	Not classified	(A)
Triethoxycaprylylsilane	2943-75-1	0 – 0.5	Not classified	(A)

Type - [A] Constituent [B] Impurity [C] Additive

SECTION 4 First aid measures

4.1 Most important symptoms and effects, both acute and delayed

Can cause irritation
Wash with mild soap and running water.
Mildly irritating to eyes
Flush with flowing water for at least 15 minutes and if symptoms persist, seek immediate medical attention.
Mildly irritating to respiratory system
(Large amounts of dust) Move victim to fresh air. Aid breathing.
Ingestion: Rinse mouth with water. Transport the injured person to fresh air and keep him at rest in a position comfortable for breathing. If material is swallowed, if person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed by medical personnel. Consult a doctor if symptoms occur.

4.1 Indication of any immediate medical attention and special treatment needed

Treat symptomatically
Contact supplier for further information.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
Inhalation: Avoid inhalation of dusts. Use ventilation and PPE. Move victim to fresh air and keep at rest in a position comfortable for breathing. Aid breathing; get medical attention if symptoms occur.
Ingestion: Wash mouth out with water. Move victim to fresh air and keep rested in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to

do so by medical personnel. Get medical attention if symptoms occur.

SECTION 5 Fire-fighting measures

5.1 Extinguishing media

P370+P378 - In case of fire: use water, alcohol resistant foam or dry agent to extinguish.

5.2 Special hazards arising from the substance or mixture

Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions
Moonshine products are non-combustible and will not burn. Additionally, many chemicals can evolve during any partial decomposition of chemical products. The amounts or identities cannot be predicted and can differ in each situation.
See 'Section 11' for more information on health effects and symptoms.

5.3 Advice for firefighters

Special precautions 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:
Moonshine products will not support combustion, but in a sustained fire, proper protection and self-contained breathing apparatus (SCBA) with a full face-piece, operated in positive pressure mode (including fire-fighters helmets, protective boots and gloves) conforming to European standards EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid inhalation of dusts.

For non-emergency personnel:
No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Put on appropriate Personal Protective Equipment.

For emergency responders:
If specialized clothing is required to deal with the spillage, take note of any information in 'Section 8' on suitable and unsuitable materials. See also the information in 'For non-emergency personnel'.

6.2 Environmental Precautions

Glassflake is generally considered to be an inert solid waste. No special precautions are needed in case of release or spill.

6.3 Methods and material for containment and cleaning up

Small/Large spill:
Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections

See 'Section 1' for emergency contact information. See 'Section 8.2' for information on appropriate personal protective equipment.

See 'Section 13' for additional waste treatment information.

SECTION 7 Handling and storage

The information in this section contains generic advice and guidance. The list of 'Relevant identified uses' in 'Section 1' should beconsulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures and advice general occupational information on hygiene measures: Avoid inhalation of dusts, use ventilation and extraction systems where available and use PPE. Put on Personal Protective Equipment (see 'Section 8.2' for more information). Eating, drinking and smoking should be prohibited in areas where the 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.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits (EU & UK):

Product/Ingredient name	Exposure limit values (8 Hour TWA reference period)
Calcium Sodium Borosilicate	EH40/2005 WELs (8/2007) (United Kingdom (UK) 10mg/m3 / EU 5mg/m3.
Titanium Dioxide	10mg/m3 (total inhalable)4mg/m3 (respirable)
Amorphous Silica	2.4mg/m3 (respirable) 6mg/m3 (total inhalable) 10mg/m3 (total inhalable) 4mg/m3 (respirable)
Tin Oxide	Belgium: TWA = 2mg/m3 (as Sn), Canada: TWA = 2mg/m3 (as Sn) Finland: TWA = 2mg/m3 (as Sn), Spain: TWA = 2 mg/m3 (as Sn), Korea: TWA = 2mg/m3 Korea, ACGIH, Austria, France, NIOSH - TWA = 5mg/m3 Canada, Australia, Finland, UK TWA = 5mg/m3 (fume, as Fe)
	Belgium - TWA = 2ppm, 5mg/m3 (fume, as Fe), Denmark - TWA = 3.5mg/m3 (fume, as Fe),

SECTION 8 Exposure controls/personal protection (…)

Occupational exposure limits (US):

Product/Ingredient name	Exposure limit values
Calcium Sodium Borosilicate	ACGIH TLV (8hr. TWA) 5mg/m3 NIOSH: TWA = 3 fibers/cm3 (total dust), (fibers ≤ 3.5-µm in diameter & ≥ 10µm in length) OSHA PEL (8hr.TWA)
Amorphous Silica	Not available
Titanium Dioxide	OSHA 10mg/m3 (total inhalable) 4mg/m3 (respirable)
Tin Oxide	NIOSH: TWA = 2mg/m3 (as Sn)
Iron Oxide:	NIOSH: TWA = 5 mg/m³

Recommended monitoring procedures:
If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of ventilation or other control measures and/or the necessity to use respiratory protective equipment.
Reference should be made to the European Standards EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

DNELs: Not available. PNECs: Not available.

8.2 Exposure controls

Appropriate engineering controls:
Avoid inhalation of dusts, use ventilation and extraction systems where available and use PPE. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Individual protection measures -
Hygiene measures: Good personal hygiene and the use of barrier creams, caps, protective gloves, cotton overalls or long sleeved loose fitting clothing will maximize comfort. Appropriate techniques should be used to remove potentially contaminated clothing. Work clothing should be laundered separately from other clothing before reuse. Ensure that eyewash stations and safety showers are close to the workstation location.

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

Skin/Hand protection: Use gloves to protect against physical irritation or injury if required by handling conditions. Gloves: Nitrile rubber, butyl rubber, PVC, Viton

Body protection: Wear clean body covering clothing.

Other skin protection: 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.

Respiratory protection: If dust is generated and ventilation is inadequate, use a respirator that will protect against dust/mist.
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.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Solid in the form of flakes, powder
- Odour threshold No odour
- pH: 5-9
- Melting point/Range: >850 deg C / approx. 688 deg C (Softening point)
- Freezing point/Range: Not applicable
- Boiling Point/Range: Not available
- Flashpoint: Closed cup: Not applicable (Product does not sustain combustion).
- Flammability: Not available
- Upper explosive limit: Not applicable % (in air)
- Evaporation Rate: Not available
- Lower explosive limit: Not applicable % (in air)
- Vapour Density: Not available
- Density: 2.8-3.2

SECTION 9 Physical and chemical properties (…)

- Solubility in water: Insoluble in water
- Partition Coefficient: (n-Octanol/Water) Not available
- Autoignition Temperature Not available
- Viscosity: Not available
- Explosive Properties: Not available
- Oxidizing Properties: Not available
- Particle Characteristics: 40-75µm (Average d50 by laser diffraction).

9.2 Other information

No additional information.

SECTION 10 Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

The product is stable under normal conditions of use.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Avoid airborne dusts. When exposed to high temperatures, product may produce hazardous decomposition products.
Refer to protective measures listed on 'Sections 7 and 8'.

10.5 Incompatible materials

Strong acids, Strong bases, Hydrogen fluoride, Oxidizing agents, Ammonia, Oxygen difluoride, Chlorine trifluoride

10.6 Hazardous Decomposition Products

Glassflake products may release small amounts of acetic acid and other organic materials at elevated temperatures.

SECTION 11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Calcium Sodium Borosilicate: Not classifiedAmorphous Silica: Not classified.
Titanium Dioxide (Oral): Rat LD50 >2,000mg/kg (OECD TG 420)
(Dermal): Rabbit, LD50 >10,000mg/kg
Tin Oxide (Oral): Rat LD50 > 2,000mg/kg
Silica (Dermal): Rat, LD50 >5,000mg/kg
Iron Oxides (Oral): Rat LD50 >5,000mg/kg (EU Method B.1)

Inhalation:
Titanium Dioxide: Rat, LC50 ＞3.43mg/L 4hr (OECD TG 403)
Iron Oxides: Rat, LD50 ＞5,05mg/L/4hr (OECD TG 412, GLP)
Silica: Rat, LC50 5.01 ㎎/ℓ 4hr

Skin irritation/corrosion - May cause skin irritation.
Calcium Sodium Borosilicate: In skin irritation with rabbits, irritations were not observed (OECD, TG 404 GLP).
Amorphous Silica: Not observed (Oral & Dermal).
Titanium Dioxide: Not observed (OECD, TG 404 GLP)
Tin Oxide: Not observed.

Serious eye damage/ irritation - May cause temporary irritation.
Calcium Sodium Borosilicate: In a case study on the effect of the occupational exposure with human, eye irritations not observed.
Amorphous Silica: Not observed.
Titanium Dioxide: Not observed (OECD, TG 404 GLP)
Tin Oxide: Not observed.

Respiratory sensitization: May cause mechanical irritation.

Mutagenicity
Calcium Sodium Borosilicate: Mutagenic reactions were not observed in in-vitro (TNF-alpha test).
Amorphous Silica: Unscheduled DNA synthesis (Rat).
Titanium Dioxide: Negative reactions were observed in in-vitro (mammalian cell gene mutation test (OECD TG 476, GLP),mammalian chromosome aberration test (OECD TG 73, GLP), bacterial reverse mutation assay (OECD TG471 and in in-vivo (micronucleus assay).
Tin Oxide: Not observed.

SECTION 11 Toxicological information (....)

Skin sensitization: In a case study of worker exposure by dermal contact, skin sensitization was not observed.

Carcinogenicity Not classifiable as to its carcinogenicity to humans.

Reproductive toxicity: In a reproductive/developmental toxicity test, reproductive/developmental toxicity were not observed.

Specific target organ toxicity (single exposure): Not available

Specific target organ toxicity (repeat exposure): Not available

Teratogenicity: Not available.

Aspiration hazard: No aspiration hazards expected.

Information of the likely exposure routes: Not classified.

Potential acute health effects
Inhalation: Dusts from this product may cause mechanical irritation of the nose, throat and respiratory tract.

Ingestion: Although ingestion of this product is not likely to occur in industrial applications, accidental ingestion may cause illness or irritation of the mouth and gastrointestinal tract.

Potential Chronic health effects: Not available.

Conclusion/Summary: There are no known health effects from the long term use or contact with coated or uncoated glassflakes. Glassflakes cannot reach deep into the lung because they have a mean average diameter greater than 10µm. Flakes of this diameter cannot penetrate the narrow, bending passages of the human respiratory tract to reach the lower regions of the lung and thus, have no possibility of causing serious pulmonary damage. Instead, they deposit on the surfaces of the upper respiratory tract, nose or pharynx. These flakes are then cleared through normal physiological mechanisms.

The product is not classified as dangerous.

SECTION 12 Ecological information

12.1 Toxicity

Fish:
- Calcium Aluminum Borosilicate: LC50 > 1000 ㎎/ℓ 96 hr (OECD Guideline 203)
- Titanium Dioxide: LC50 > 100 ㎎/ℓ 96 hr (OECD Guideline 203)
- Iron Oxides: LC0 ≥ 50000 ㎎/ℓ 96 hr
- Silica: LL0 10000 ㎎/ℓ 96 hr

Aquatic invertebrates:
- Calcium Aluminum Borosilicate: NOEC ≥ 1000 ㎎/ℓ 3 day (OECD TG 202)
- Titanium Dioxide: LC50 > 500 ㎎/ℓ 48 hr Daphnia magna
- Iron Oxides: EC50 > 100 ㎎/ℓ 48 hr
- Silica: EC50 > 5000 ㎎/ℓ 48hr Daphnia magna

Aquatic plants:
- Calcium Aluminum Borosilicate: NOEC ≥ 1000 ㎎/ℓ 3 day (OECD TG 201)
- Titanium Dioxide: EC50 > 50 ㎎/ℓ 72hr
- Silica: EC50 > 173.1 ㎎/ℓ 72hr (NOEC: 173.1mg/L

Microorganisms/Effect on activated sludge: EC50 (0.5h), bacteria: Not determined
- Chronic toxicity to fish: Not available
- Chronic toxicity to aquatic invertebrates: Not available
- Assessment of terrestrial toxicity: Not available.

12.2 Persistence and degradability

- Not available

12.3 Bioaccumulation Potential

- Not available

12.4 Mobility in soil

- Not available

12.5 Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bio accumulative/toxic) criteria or the vPvB (very persistent/ very bio accumulative) criteria.

12.6 Other Adverse Effects

No known significant effects or critical hazards.

SECTION 13 Disposal considerations

The information in this section contains generic advice and guidance. The list of 'Relevant identified uses' in 'Section 1' should beconsulted for any available use-specific information provided by the Exposure Scenario(s).

13.1 Waste treatment methods

Product - Methods of disposal:
The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste: The generation of waste should be avoided wherever possible. Waste packaging should be recycled. Incinerationor landfill should only be considered when recycling is not feasible.

Packaging - Methods of disposal:
The generation of waste should be avoided wherever possible. Waste packaging should be recycled. Incineration or landfill shouldonly be considered when recycling is not feasible.
Type of packaging: Pallet - European waste catalogue (EWC): 150102 plastic packaging, 150103 wooden packaging.

Special precautions: This material and its container must be disposed of in a safe way.

SECTION 14 Transport information

14.1 Special precautions for user

The product(s) are not considered hazardous according to national and international regulations on the transport ofdangerous goods.

SECTION 15 Regulatory information

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

(GHS) COMMISSION REGULATION (EU) 2020/878

REACH: Calcium Sodium Borosilicate or Calcium Aluminum Borosilicate (Glassflake) is classed as an article under REACH therefore exempt from REACH registration under Annex V paragraph 11 (Exemptions from the Obligation to Register in Accordance with Article 2(7) (b) Annex XIV - List of substances subject to authorization. Substances of Very High Concern. Glassflake contains Boron in the glass matrix from the melted raw materials, therefore Glassflake and Moonshine Effect Pigments are not a substances of very high concern and are generally regarded as safe GRAS, safe for use in cosmetics.

KOREA Regulatory information:
Occupational Safety and Health Regulation:
Calcium Aluminum Borosilicate: Administration subject listed/Occupational exposure limits listed. Work environment monitoring listed (6 months) Health examination agent (12 months).
Titanium Dioxide: Administration subject listed/Occupational exposure limits listed. Work environment monitoring listed (6 months).
Tin Oxide: Administration subject listed/Occupational exposure limits listed. Work environment monitoring listed (6 months) Health examination agent (12 months)
Iron Oxides: Administration subject listed/Occupational exposure limits listed.

(OSHA) US Federal Regulations
Toxic substances Control Act: This product contains the following chemical substances subject to the reporting requirements of TSCA12 (B) if exported from the United States: No TSCA 12 (b) components exist in this product.
CERCLA - SARA Hazard Category: This product has been reviewed according to the EPA 'Hazard Categories' promulgated underSections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: None known.
Sara Section 313: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372: No Sara 313 components exist in this product:

U.S. State Regulations: New Jersey Right-to-Know: The following materials are non-hazardous, but among the top five components inthis product. No NJ Right-To-Know components exist in this product.
Pennsylvania Right-To-Know: The following non-hazardous ingredients are present in the product at greater than 3%. No PA Right-To-Know components exist in this product.

CALIFORNIA PROPOSITION 65: No Proposition 65 Carcinogens exist in this product. No Proposition 65 Reproductive Toxins exist inthis product.

International Regulations:
CANADIAN WHMIS: This SDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16headings. Canadian WHMIS Class: No WHMIS Class Assigned.

Chemical Inventory Status (CAS No. 65997-17-3): TSCA: Listed, EINECS/ELINCS - Listed (EC No. 266-046-0), Canadian DSL - Listed, Australia AICS - Listed, Japan ENCS (1)-189 - Listed, Korea KIEC - Listed ECL = KE-17630), China IECSC - Listed, New Zealand NZIoc - Listed, Taiwan TCSI - Listed, Philippines PICCS - Listed, Switzerland - Unknown, Turkey CIRS - Listed.

SECTION 15 Regulatory information (…)

Chemical Inventory Country	Inventory Name	Calcium Sodium Borosilicate	Tin Oxide	Titanium Dioxide	Silica	Iron oxides	Triethoxycaprylylsilane
EU	EINECS	o	o	o	o	o	o
Australia	AICS	o	o	o	o	o	o
Canada	DSL	o	o	o	o	o	o
Japan	ENCS	o	o	o	o	o	o
Korea	KECI	o	o	o	o	o	o
China	IECSC	o	o	o	o	o	o
USA	TSCA	o	o	o	o	o	o

"o" means existing substance.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

SECTION 16 Other information

Composition and values vary for each finished product, for detailed composition, please refer to the Technical Data Sheets.

Date of issue: JANUARY 2024
Version 3.0 (GHS & OSHA Compliant)

Note: This information is based on present scientific and technical knowledge, and is offered in good faith, but without guarantee or liability. Should further information regarding this product be required, please consult Glassflake technicalservices.