Revision: JANUARY 2024

moonshine
Bringing Brilliance with Borosilicate

SAFETY DATA SHEET

GLASS FLAKE

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

1.1 Product identifier

This SDS is for information only and is not mandated by the Regulations.

Product identifier(s): Moonshine® Ultra Travel

Product Name(s): Violet-Blue-Green Ultra Sparkle Blue

Product Code(s): GFUT-VBGUS-B

Other means of identification: Calcium Sodium Borosilicate, Calcium Aluminum Borosilicate Moonshine® Ultra Travel Pigments

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

1.2 Details of the supplier of the safety data sheet

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

1.3 Emergency telephone number

- Emergency Telephone: +44 (0) 1652 642124

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Product identification: Mixtures

Not classified as hazardous.

2.2 Label elements

Not applicable.

2.3 Other hazards

Depending on the type of handling and use, airborne glass fiber dusts may be generated. This product should be handled with care toavoid 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	54 - 92	Not classified	(A)
Silica	7631-86-9	5 - 20	Not classified	(A)
Titanium Dioxide	13463-67-7	2 - 20	Hazardous*	(A)
Ferric Ferrocyanide	14038-43-8	1 - 2	Not classified	(A)
Tin Oxide	18282-10-5	0 – 5	Not classified	(A)

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

*The finished product is not classed as hazardous as it does not contain >1% particles with aerodynamic diameter ≤10µm.

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.
Inhalation: Move victim to fresh air and keep at rest in a position comfortable for breathing.
Aid breathing and get medical attention 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.
Aid breathing; 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. FerricFerrocyanide may release carbon oxides, nitrogen oxides or nitrogen oxides.

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, use ventilation and extraction systems where available and use PPE.

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

Calcium Sodium Borosilicate is considered 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 be consulted 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.

The products should be handled with care to avoid airborne fiber dust generation, wear appropriate PPE and use extraction systems.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits (EU):

Product/Ingredient name	Exposure limit values (8 Hour TWA reference period)
Calcium Sodium Borosilicate	EH40/2005 WELs (United Kingdom (UK), 8/2007). TWA = 5mg/m3
Amorphous Silica	2.4mg/m3 (respirable) 6mg/m3 (total inhalable)
Titanium Dioxide	10mg/m3 (total inhalable)4mg/m3 (respirable)
Ferric Ferrocyanide	Contains no substances with occupational exposure limit values.
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

Occupational exposure limits (US):

Product/Ingredient name	Exposure limit values
Calcium Sodium Borosilicate	ACGIH TLV (8hr.TWA) 5mg/m3 OSHA PEL (8hr.TWA)
Ferric Ferrocyanide	Contains no substances with occupational exposure limit values.
Tin Oxide	NIOSH: TWA = 2mg/m3 (as Sn)

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: Nitrilerubber, 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 ofthe selected respirator.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they complywith the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications tothe 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
- Odour threshold No odour
- pH: 3-7
- 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).
- Decomposition temperature: Not available.

SECTION 9 Physical and chemical properties (…)

- Evaporation Rate: Not available
- Flammability: Not available
- Upper explosive limit: Not applicable % (in air)
- Lower explosive limit: Not applicable % (in air)
- Vapour Density/Pressure: Not available
- Density or Relative Density: 2.4-2.8
- Solubility in water: Insoluble in water
- Partition Coefficient (n-Octanol/Water): Not available
- Autoignition Temperature: Not available
- Kinematic Viscosity: Not available
- Explosive Properties: Not available
- Oxidizing Properties: Not available
- Particle characteristics: Ultra Sparkle = d10: 40µm – d90: 200µm 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'. Avoid deposition of dust.

10.5 Incompatible materials

Strong acids, Strong bases, Hydrogen fluoride, Oxidizing agents, Ammonia, Oxygen difluoride, Chlorine trifluoride, saltsalkali. Product should not be used in alkaline formulations or with ethylene oxide for microbial sterilization.

10.6 Hazardous Decomposition Products

Moonshine 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 classified
Amorphous Silica: Not classified.
Titanium Dioxide (Oral): Rat LD50 >5,000mg/kg (OECD TG425)(Dermal): Rabbit, LD50 >10,000mg/kg.
Ferric Ferrocyanide: No data available.
TinOxide (Oral): Rat LD50 > 2,000mg/kg

Skin irritation/corrosion
Calcium Sodium Borosilicate: In skin irritation with rabbits, irritations were not observed (OECD, TG404 GLP).
Amorphous Silica: Not observed (Oral & Dermal).
Titanium Dioxide: Not observed (OECD, TG404 GLP)
Ferric Ferrocyanide: No data available.
Tin Oxide: Not observed.

Calcium Sodium Borosilicate: In a case study on the effect of the occupational exposure with human, eye irritations were not observed.Amorphous Silica: Not observed.
Titanium Dioxide: Not observed (OECD, TG404 GLP)
Ferric Ferrocyanide: No data available.
Tin Oxide: Not observed.

Respiratory sensitization: May cause mechanical irritation.

Skin sensitization
Calcium Sodium Borosilicate: In a case study of worker exposure by dermal contact, skin sensitization was not observed.
Amorphous Silica: Not observed.
Ferric Ferrocyanide: No data available.
Tin Oxide: Not classified.

SECTION 11Toxicological information (...)

Inhalation: Not classified.

Carcinogenicity Not classifiable as to its carcinogenicity to humans.Mutagenicity
Calcium Sodium Borosilicate: Mutagenic reactions were not observed 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 TG476, GLP), mammalian chromosome aberration test (OECD TG73, GLP), and bacterial reverse mutation assay (OECD TG471 and in-vivo (micronucleus assay)
Ferric Ferrocyanide: No data available.
Tin Oxide: Not observed.

Reproductive toxicity
Calcium Sodium Borosilicate: In a reproductive/developmental toxicity test, reproductive/developmental toxicity were not observed.
Amorphous Silica: Not available.
Ferric Ferrocyanide: No data available.
Tin Oxide: Not classified.

Specific target organ toxicity (single exposure): Not available

Specific target organ toxicity (repeat exposure): Not available

Teratogenicity
Conclusion/Summary: Not available.

Information of the likely exposure routes Conclusion/Summary:
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.

Aspiration Hazard: No aspiration hazard expected.

Conclusion/Summary: There are no known health effects from the long term use or contact with non respirable glassflakes or coated glassflakes. Non respirable flakes cannot reach the deep lung because they have a diameter of greater than 10 microns. 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 cleared through normal physiological mechanisms.

11.2 Information on other hazards

No other hazards or endocrine disrupting properties.

The products are not classified as dangerous.

SECTION 12 Ecological information

12.1 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 v PvB assessment

- Not applicable

12.6 Other Adverse Effects

No known significant effects or critical hazards. No endocrine disrupting properties.

SECTION 13 Disposal considerations

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

SECTION 13 Disposal considerations (…)

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 alicensed 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

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

The product(s) are not considered hazardous according to national and international regulations on the transport of dangerous goods. Avoid generation of dust.

SECTION 15 Regulatory information

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

This SDS complies with COMMISSION REGULATION (EU) 2020/878
REACH: Calcium Sodium 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 however, Glassflake finished products are not a substances of very high concern and are generally regarded as safe GRAS. All the colorants are REACH registered of REACH Exempt due to low tonnage levels.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles not applicable.

(OSHA) US Federal Regulations
Toxic substances Control Act: This product contains the following chemical substances subject to the reporting requirements of TSCA 12 (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 under Sections 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 in this 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: Titanium Dioxide is listed on the California Proposition 65 List as a chemical, known to the State of California, to cause cancer in its airborne form, i.e. unbound particles or respirable size. This listing in Proposition 65 does not cover Titanium Dioxide, when it remains bound in a product matrix.

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

Chemical Inventory Status (CAS No. 65997-17-3):

Chemical Inventory	Inventory Name	Calcium Sodium Borosilicate Calcium Aluminum Borosilicate	Titanium Dioxide	Tin Oxide	Ferric Ferrocyanide
EU	EINECS	o	o	o	o
Australia	AICS	o	o	o	o
Canada	DSL	o	o	o	o
Japan	ENCS	x	o	o	x
Korea	KECI	o	o	o	o
China	IECSC	o	o	o	o
USA	TSCA	o	o	o	o

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

SECTION 16 Other information

No other information.

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