SAFETY DATA SHEET

Moonshine® Effect Series

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

1.1. Product identifier

Trade name

Moonshine® Effect Series

Other names / Synonyms

Moonshine® Glassflake pigment

Product no.

GFESW, GFESWS, GFEG, GFEGS, GFEV, GFEVS, GFER, GFERS, GFEB, GFEBS, GFEGR, GFEGRS

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

Relevant identified uses of the substance or mixture

None known.
Restricted to professional users.

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Glassflake Limited
Forster Street
LS10 1PW Leeds
United Kingdom
0113 270 3615
www.glassflake.com

Contact person

Sarah Ross

E-mail

info@glassflake.com

Revision

10/01/2025

SDS Version

1.0

Date of previous version

10/01/2025 (1.0)

1.4. Emergency telephone number

Healthcare professionals: Dial 0344 892 0111 to reach The National Poisons Information Service (NPIS) (24 hour service)
General public:
England - Dial 111 to reach NHS 111 (24 hour service)
Scotland - Dial 112 to reach NHS 24 (24 hour service)
Wales - Dial 111 or 0845 4647 to reach NHS Direct (24 hour service)
See section 4 “First aid measures”.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

2.2. Label elements

Hazard pictogram(s)

Not applicable.

Signal word

Not applicable.

Hazard statement(s)

Not applicable.

Precautionary statement(s)

General
-
Prevention
-
Response
-
Storage
-
Disposal
-

Hazardous substances
None known.

Additional labelling
EUH210, Safety data sheet available on request.
EUH212, Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

2.3. Other hazards

Additional warnings
This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake	CAS No.: 65997-17-3 EC No.: 266-046-0 UK-REACH: Exempt from REACH Registration. Classified as an Article. Non-hazardous. Index No.:	48-97%		[1], [19]
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	CAS No.: 13463-67-7 EC No.: 236-675-5 UK-REACH: Index No.: 022-006-00-2	3-51%		
Tin Oxide	CAS No.: 18282-10-5 EC No.: 242-159-0 UK-REACH: Index No.:	0-1%		[1]

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information
[1] European occupational exposure limit.
[19] UVCB = Unknown or variable composition, complex reaction products or of biological materials

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation
Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact
Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

Eye contact

If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.

Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.
In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

Burns

Not applicable.

4.2. Most important symptoms and effects, both acute and delayed

High amounts of dust can cause coughing and general irritation of the respiratory airways.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

No specific requirements.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove flammable materials if conditions allow it. Ensure sufficient ventilation.
Ensure adequate ventilation, especially in confined areas.
Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.
Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

Collect spills carefully. Moist the material with water in order to prevent the formation and propagation of dust.
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 “Disposal considerations” on handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact during pregnancy and while nursing.
Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Keep only in original packaging.

Storage conditions

Dry, cool and well ventilated

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]
Long term exposure limit (8 hours) (mg/m³): 10(inhalable)/4(respirable)

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002. EH40/2005 Workplace exposure limits (Fourth Edition 2020).

DNEL

Tin Oxide

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	2 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	5.7 mg/kg bw/day
Short term – Systemic effects - General population	Dermal	2 mg/kg bw/day
Short term – Systemic effects - Workers	Dermal	5.7 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	6 mg/m³
Long term – Systemic effects - Workers	Inhalation	2 mg/m³
Short term – Systemic effects - General population	Inhalation	6 mg/m³
Short term – Systemic effects - Workers	Inhalation	2 mg/m³
Long term – Systemic effects - General population	Oral	2 mg/kg bw/day
Short term – Systemic effects - General population	Oral	2 mg/kg bw/day

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

Duration:	Route of exposure:	DNEL:
Long term – Local effects - General population	Inhalation	28 µg/m³
Long term – Local effects - Workers	Inhalation	170 µg/m³

PNEC

Tin Oxide

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		100 µg/L
Intermittent release (freshwater)		1 mg/L
Marine water		10 µg/L
Sewage treatment plant		100 mg/L

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

Apply standard precautions during use of the product. Avoid inhalation of gas or dust.
Airborne gas and dust concentrations must be kept at a minimum and below current limit values (see above).
Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and showers are clearly marked.
Airborne gas and dust concentrations must be kept at a minimum. Provide efficient mechanical ventilation. If not possible use suitable respiratory equipment.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

Measures to avoid environmental exposure

No specific requirements.

Individual protection measures, such as personal protective equipment

Generally

Use only UKCA marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
Combination filter AXP1		Brown/White	EN14387, EN143

Skin protection

Recommended	Type/Category	Standards
Dedicated work clothing should be worn.	-	-

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Nitrile rubber	-	>480	EN374

Eye protection

Type	Standards
Safety glasses with side shields.	EN166

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Powder

Colour

Various colours

Odour / Odour threshold

None

pH

7-11

Density (g/cm^3)

No relevant or available data due to the nature of the product.

Kinematic viscosity

No data available

Particle characteristics

Particle size: Sparkle = d10 - d90 = 10-40µm by laser diffraction. Shimmer = d10 - d90 = 50-250µm by laser diffraction.

Phase changes

Melting point/Freezing point (°C)

850

Softening point/range (°C)

688

Boiling point (°C)

No data available

Vapour pressure

Not applicable

Relative vapour density

Not applicable

Decomposition temperature (°C)

Not applicable

Data on fire and explosion hazards

Flash point (°C)

No data available

Flammability (°C)

The material is not combustible.

Auto-ignition temperature (°C)

Not applicable

Lower and upper explosion limit (% v/v)

Not applicable

Solubility

Solubility in water

Insoluble

n-octanol/water coefficient (LogKow)

No data available

Solubility in fat (g/L)

Not applicable

9.2. Other information

Sensitivity to shock

No

Evaporation rate (n-butylacetate = 100)

Not applicable

Oxidizing properties

No data available

Other physical and chemical parameters

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 “Handling and storage”.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Generation of dust

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

Acute toxicity

Product/substance	Moonshine® Effect Series
Test method:	OECD 425
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	>5,000 mg/kg

Product/substance	Moonshine® Effect Series
Test method:	OECD 402
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	>10,000 mg/kg

Product/substance	Moonshine® Effect Series
Test method:	OECD 425
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	>2,000 mg/kg

Product/substance	Tin Oxide
Species:	Rat

Test:	LD50
Result:	>2,000 mg/kg

Skin corrosion/irritation

Product/substance	Moonshine® Effect Series
Test method:	OECD 404
Species:	Rabbit
Result:	No skin irritation

Product/substance	Moonshine® Effect Series
Test method:	OECD 404
Species:	Rabbit
Result:	No skin irritation

Product/substance	Moonshine® Effect Series
Result:	No skin irritation

Product/substance	Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
Result:	Mildly irritating

Serious eye damage/irritation

Product/substance	Moonshine® Effect Series
Species:	Human
Result:	No eye irritation

Product/substance	Moonshine® Effect Series
Test method:	OECD 405
Result:	No eye irritation

Product/substance	Moonshine® Effect Series
Test method:	OECD 405
Result:	No eye irritation

Product/substance	Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
Result:	Mildly irritating

Respiratory sensitisation

Product/substance	Moonshine® Effect Series
Result:	No adverse effect observed (not sensitising)

Product/substance	Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
Result:	May cause an allergic skin reaction.

Skin sensitisation

Product/substance	Moonshine® Effect Series
Species:	Human
Result:	No adverse effect observed (not sensitising)

Product/substance	Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
Result:	May cause an allergic skin reaction.

Germ cell mutagenicity

Product/substance	Moonshine® Effect Series
Conclusion:	Not mutagenic
Other information:	In vitro

Product/substance	Moonshine® Effect Series
Test method:	OECD 476
Conclusion:	Not mutagenic

Product/substance	Moonshine® Effect Series
Test method:	OECD 473
Conclusion:	Not mutagenic

Product/substance	Moonshine® Effect Series
Conclusion:	Not mutagenic

Product/substance: Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
Conclusion: Not mutagenic

Carcinogenicity

Product/substance: Moonshine® Effect Series
Conclusion: Not classifiable as a human carcinogen

Product/substance: Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
Conclusion: Not classifiable as a human carcinogen

Reproductive toxicity

Product/substance: Moonshine® Effect Series
Conclusion: No toxicity to reproduction

Product/substance: Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
Conclusion: No toxicity to reproduction

STOT-single exposure

Product/substance: Moonshine® Effect Series
Conclusion: Not classified

STOT-repeated exposure

Product/substance: Moonshine® Effect Series
Conclusion: Not classified

Aspiration hazard

Product/substance: Moonshine® Effect Series
Other information: No information available

Product/substance: Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake
Conclusion: No aspiration toxicity classification

11.2. Information on other hazards

Long term effects

None known.

Endocrine disrupting properties

Product/substance: Moonshine® Effect Series
Other information: No information available

Product/substance: Moonshine® Effect Series
Product/substance: Calcium Sodium Borosilicate, Calcium Aluminium Borosilicate, Glass flake

Other information

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] has been classified by IARC as a group 2B carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

No data available.

12.2. Persistence and degradability

Based on available data, the classification criteria are not met.

12.3. Bioaccumulative potential

Based on available data, the classification criteria are not met.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Endocrine disrupting properties

Product/substance: Moonshine® Effect Series
Other information: No information available

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

Waste treatment methods

Product is not covered by regulations on dangerous waste.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

01 03 08 Dusty and powdery wastes other than those mentioned in 01 03 07

Specific labelling

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

* Packing group

** Environmental hazards

Additional information

Not dangerous goods according to ADR, IATA and IMDG.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.
Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

No specific requirements.

Control of Major Accident Hazards (COMAH) - Categories / dangerous substances

Not applicable.

Additional information

Not applicable.

Sources

The Health and Safety at Work etc. Act 1974 Regulations 2013.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.
Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.
Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CE = Conformité Européenne (European conformity)
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EuPCS = European Product Categorisation System
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
GWP = Global warming potential
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
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)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

Not applicable.

The safety data sheet is validated by

Sarah Ross

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Country-language: GB-en