Speedball Mid-Fire Flux Glazes

SAFETY DATA SHEET (SDS)

Version: 01
Date of Issue:May 21, 2025

According to: Regulation (EC) No. 1272/2008
Regulation (EC) No. 1907/2006

Section 1 – Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Name:	Speedball Mid-Fire Flux Glazes
Product Colors:	Carolina Flux, Cocoa Flux, Vanilla Flux
Product sizes:	2 oz – 128 oz
SKU:	21F041, 21F040, 21F039
Product Description:	Colored liquid glaze formulations intended to be applied with a brush, then placed in a kiln for glaze firing.

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

Relevant identified use(s): The product is intended for general (adults) arts and crafts purposes.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Speedball Europe
Villantipolis 5
473 route des Dollines
06560 Valbonne, France
Business Phone: +33 6 03 36 21 73
Email: europe@speedballart.eu

1.4 Emergency telephone number

Emergency Telephone: Contact the local poison control centre.

Section 2 – Hazard(s) Identification

2.1. Classification of the substance or mixture

According to: Regulation (EC) No. 1272/2008 [CLP]

	Health	Environment	Physical
Classification:	Not classified	Not classified	Not classified
SCL and/or M-factor	N/A	N/A	N/A
Classification Procedure	Weight of evidence	Weight of evidence	Weight of evidence

2.2. Label elements

Label Pictogram: None
Signal Word: None
Hazard Statement: None
Precautionary Statement: None
Supplemental Hazard Information: None

2.3. Other hazards

- The product is not expected to be an endocrine disruptor.
- The product is not expected to meet vPvB or PBT criteria in accordance with Regulation (EC) No. 1907/2006, Annex XIII.
- No other hazards have been identified for this product.

Section 3 – Composition / Information on Ingredients

3.1 Substances

The product is a mixture and not a substance.

3.2 Mixture

Chemical Name	CAS No.	EC No.	% Concentration	GHS Hazards
Crystalline silica	14808-60-7	238-878-4	up to 8.803%	H350: Carcinogenicity (Category 1A) (inhalation) H372: Specific target organ toxicity (repeated exposure, Category 1 - lungs)
Titanium dioxide	13463-67-7	236-675-5	up to 0.1775%	H351: Carcinogenicity (Category 2) (Inhalation)
Rutile	1317-80-2	215-282-2	up to 3.8313%	H351: Carcinogenicity (Category 2) (Inhalation)
Feldspar	68476-25-5	270-666-7	up to 7.94%	H335: Specific target organ toxicity (single exposure, Category 3 – may cause respiratory irritation)

The other ingredients in the product are either considered non-hazardous or are below their respective GHS cut-off values/concentration limits in the final product and were therefore not disclosed in the SDS.

The product contains crystalline silica (CAS No. 14808-60-7), titanium dioxide (CAS No. 13463-67-7), rutile (CAS No. 1317-80-2), and feldspar (CAS No. 68476-25-5), which may be hazardous when inhaled. Given the nature and physical form of the product (*i.e.,* liquid glaze), airborne respirable particles would not likely be released from the product and therefore the hazard is not relevant to the product. It was assumed that the glaze will not be sanded after it has been fired in the kiln.

	Specific Concentration Limit	Multiplying-Factor	Acute Toxicity Estimate
Speedball Mid-Fire Flux Glazes	N/A	N/A	>2000 mg/kg (oral/dermal) >20 mg/L (inhalation)

Section 4 – First Aid Measures

4.1 Description of first aid measures

Eye contact: No specific first aid measures are required. If irritation occurs, remove contact lenses if present and easy to do – rinse eyes with water. If eye irritation persists: Get medical advice/attention.

Skin contact: No specific first aid measures are required. If irritation occurs, wash with plenty of water and soap. Take off contaminated clothing. If skin irritation persists: Get medical advice/attention.

Inhalation: Inhalation route of exposure is not anticipated with intended use. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Seek medical attention if in doubt.

Ingestion: No specific first aid measures are required. Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention if in doubt.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to **Section 11 - Toxicological Information**.

4.3 Indication of any immediate medical attention and special treatment needed

- Not required.

Section 5 – Fire Fighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media: Use extinguishing media suitable for surrounding area if material is involved in a fire (e.g., water fog, foam, dry chemical or carbon dioxide).

Unsuitable Extinguishing Media: None known.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products:

- Irritating vapours or fumes may form if product is involved in fire.
- Also see **Section 10 - Stability and Reactivity**.

5.3 Advice for firefighters

- Wear a self-contained breathing apparatus to protect against potentially irritating fumes.

Section 6 – Accidental Release Measures

6.1 Personal precautions, protective equipment (PPE) and emergency procedures

Personal Precautions: Ventilate area if spilled in confined space or other poorly ventilated areas. Observe PPE advice in **Section 8 - Exposure Controls/Personal Protection**.

Emergency Procedures: Not available.

6.2 Environmental precautions

Prevent entry and contact with soil, drains, sewers, and waterways. Inform relevant local/regional/national/international authorities.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures: Contain spill if safe to do so. Collect recoverable product and place in a designated container for recycle and/or disposal. Ventilate contaminated area thoroughly. Dispose of contents/container in accordance with local/regional/national/international regulations.

6.4 Reference to other sections

Refer to **Section 8 - Exposure Controls/Personal Protection** and **Section 13** - **Disposal Considerations**.

Section 7– Handling and Storage

7.1 Precautions for safe handling

- Wash hands thoroughly after handling.
- Wash contaminated clothing before reuse.
- Employees should be trained in the safe use and handling of chemical materials.
- Refer to **Section 8 - Exposure Controls/Personal Protection**.

7.2 Conditions for safe storage, including any incompatibilities

- Keep container tightly closed to avoid spills.
- Keep in a cool dry place.

7.3 Specific end use(s)

- Refer to **Section 1.2 - Relevant identified uses**.

Section 8– Exposure Controls / Personal Protection

8.1 Control Parameters:

Occupational exposure limits: Only vapours were considered to be foreseeable under conditions of normal use. Airborne particles, such as dust, are not foreseeable under conditions of normal use.

Chemical Name	CAS No.	ACGIH TLV TWA	OSHA PEL TWA	NIOSH REL TWA	DFG MAK
Crystalline silica	14808-60-7	0.025 mg/m^3 **R**	0.05 mg/m^3 *	0.05 mg/m^3 *	N/A
Titanium dioxide	13463-67-7	10 mg/m^3	15 mg/m^3**	N/A	0.3 mg/m^3 **R***

N/A – Not applicable
R – Measured as respirable fractions of the aerosol

* Respirable dust
** Total dust
*** Multiplied with the material density

Note: Titanium dioxide (CAS No. 13463-67-7) values listed above are related to non-ultrafine and non-nanoscale or finescale particles.

8.2 Exposure Controls:

Appropriate engineering controls

- No special requirements under ordinary conditions of use and with adequate ventilation. Mechanical ventilation or local exhaust ventilation may be required.

8.3 Personal Protective Equipment

Note: Consider the concentration and amount of product at the workplace when selecting PPE. Use protective equipment as required.

Respiratory: Under normal conditions of use, respirator is not usually required. Use appropriate respiratory protection if exposure to dust particles, mist or vapors is likely. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator.

Eyes/Face: If contact is likely, safety glasses with side shields are recommended.

Hands: Use good industrial hygiene practices to avoid skin contact. If contact with the material may occur, wear chemically protective gloves.

Body/Skin: Gloves, coveralls, apron, boots as necessary to minimize contact. Do not wear rings, watches or similar apparel that could entrap the material.

Thermal Hazards: None known.

Environmental Exposure Controls: Not available.

Hygiene measures: Observe good industrial hygiene practices. Avoid contact with skin. Contaminated work clothing should not be allowed out of the workplace and should be washed before reuse. When using the product do not eat, drink or smoke.

Section 9 – Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Note: The data below are typical values and do not constitute a specification.

Appearance: **Physical state:** **Color:** **Odor/Odor threshold:**	 Liquid See **Section 1.1** Not available	**Partition Coefficient** **n-octanol/water:** **Auto-ignition temperature:**	 Not available Not available
pH (as supplied):	7.0 – 8.0	**Decomposition temperature:**	Not available
Melting/freezing point:	Not available	**Dynamic viscosity:**	Not available
Boiling point/range:	Not available	**Molecular weight:**	Not available
Flash point:	Not available	**Taste:**	Not available
Evaporation rate:	Not available	**Explosive properties:**	Not available
Flammability:	Not available	**Oxidizing properties:**	Not available
Upper/lower explosive limits:	Not available	**Surface tension:**	Not available
Vapor pressure:	Not available	**Volatile component:**	Not available
Water solubility:	Not available	**Gas group:**	Not available
Vapor density (Air = 1):	Not available	**pH (as solution):**	Not available
Specific gravity (Water = 1):	Not available	**VOC:**	Not available
Relative density:	Not available	**Particle size range:**	Not available

9.2.1 Information with Regard to Physical Hazard Classes

Explosives	Not available
Flammable gases	Not available
Aerosols	Not available
Oxidising gases	Not available
Gases under pressure	Not available
Flammable liquids	Not available
Flammable solids	Not available
Self-reactive substances and mixtures	Not available
Pyrophoric liquids	Not available
Pyrophoric solids	Not available
Self-heating substances and mixtures	Not available
Substances and mixtures, which emit flammable gases in contact with water	Not available
Oxidising liquids	Not available
Oxidizing solids	Not available
Organic peroxides	Not available
Corrosive to metals	Not available
Desensitised explosives	Not available

9.2.2 Other Safety Characteristics

Mechanical sensitivity	Not available
Self-accelerating polymerisation temperature	Not available
Formation of explosible dust/air mixtures	Not available
Acid/alkaline reserve; (e) evaporation rate	Not available
Miscibility	Not available
Conductivity	Not available
Corrosiveness	Not available
Gas group	Not available
Redox potential	Not available
Radical formation potential	Not available
Photocatalytic properties	Not available

Section 10 – Stability and Reactivity

10.1 Reactivity

- This material is not considered to be reactive under normal handling and storage conditions.

10.2 Chemical stability

- This material is considered stable under normal handling and storage conditions.

10.3 Possibility of hazardous reactions

- Not expected to occur under normal handling and storage conditions.

10.4 Conditions to avoid

- Exposure to high temperatures
- Strong acids
- Strong bases
- Strong oxidisers

10.5 Incompatible materials

- Strong acids
- Strong bases
- Strong oxidisers
- Strong reducing agents.

10.6 Hazardous decomposition products

- Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, and other products of incomplete combustion. Irritating and toxic substances may be emitted upon combustion, burning, or decomposition of dry solids.

Section 11 – Toxicological Information

11.1. Information on hazard classes:

Likely routes of exposure: Skin contact, incidental ingestion.
Potential signs and symptoms: None expected under conditions of normal use.

Acute oral toxicity:	The product is practically non-toxic based on available animal and human use data. Oral ATE >2000 mg/kg
Acute dermal toxicity:	The product is practically non-toxic based on available animal and human use data. Dermal ATE >2000 mg/kg
Acute inhalation toxicity:	The product is practically non-toxic based on available animal and human use data.
Skin corrosion/irritation:	The ingredients >1% in the product are not skin irritants based on human and/or animal studies.
Serious eye damage/irritation:	The ingredients >1% in the product are not eye irritants based on human and/or animal studies.
Respiratory or skin sensitization:	The ingredients >0.1% in the product are not sensitizing to the skin based on human and/or animal studies.
Mutagenicity:	The ingredients >0.1% in the product are not mutagenic based on human and/or animal studies.
Carcinogenicity:	Crystalline silica (CAS No. 14808-60-7) (airborne, unbound particles of respirable size) has been classified for carcinogenicity (Category 1A). Titanium dioxide (CAS No. 13463-67-7) (airborne, unbound particles of respirable size) and rutile (CAS No. 1317-80-2) have been classified for carcinogenicity (Category 2). Crystalline silica (listed as silica dust, crystalline, in the form of quartz or cristobalite) is listed as Group 1 by IARC. Titanium dioxide is listed as a Group 2B carcinogen by IARC. Crystalline silica and titanium dioxide are also listed as carcinogens by NTP and ACGIH. Product classification is not warranted for carcinogenicity based on a review of available data and the nature/physical form of the product (*i.e.,* liquid glaze). The other ingredients >0.1% are not carcinogenic based on animal studies or no data identified for the components in this product.
Reproductive Toxicity:	The ingredients >0.1% in the product are not reproductive toxicants based on human and/or animal studies.
Specific target organ toxicity (single exposure):	Feldspar (CAS No. 68476-25-5) has been classified for specific target organ toxicity (single exposure, Category 3 – may cause respiratory irritation). Product classification is not warranted for specific target organ toxicity given the nature/physical form of the product (*i.e.,* liquid glaze). The other ingredients >1% in the product are not specific target organ toxicity (single exposure) toxicants based on human and/or animal studies.
Specific target organ toxicity (repeated exposure):	Crystalline silica (CAS No. 14808-60-7) has been classified for specific target organ toxicity (repeated exposure, Category 1 - lungs). Product classification is not warranted for specific target organ toxicity based on a review of available data and the nature/physical form of the product (*i.e.,* liquid glaze). The other ingredients >1% are not specific target organ toxicity (repeated exposure) toxicants based on human and/or animal studies.
Aspiration hazard:	The ingredients >1% in the product are not aspiration hazards based on human and/or animal studies.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

- This product is not expected to be endocrine disrupting.

11.2.2 Information on other hazards

- No other hazards to note.

References:

ECHA (European Chemicals Agency). 2025. REACH Registered Substances Database. https://echa.europa.eu/search-for-chemicals
IARC (International Agency for Research on Cancer). 2025. Agents Classified by the IARC Monographs, Volumes 1–129. https://monographs.iarc.who.int/list-of-classifications/
NTP (National Toxicology Program). 2021. Report on Carcinogens, Fifteenth Edition.; Research Triangle Park, NC: U.S. Department of Health and Human Services, Public Health Service. https://ntp.niehs.nih.gov/go/roc15

Section 12 – Ecological Information

12.1 Toxicity

- This product is not expected to be harmful or toxic to aquatic life.

12.2 Persistence and degradability

- No data available for the other components of the product.

12.3 Bioaccumulative potential

- No data available.

12.4 Mobility in Soil

- No data available.

12.5 Results of PBT and vPvB assessment

- No data available.

12.6 Other adverse effects

- No further data available.

References:

ECHA (European Chemicals Agency). 2025. REACH Registered Substances Database. https://echa.europa.eu/search-for-chemicals

Section 13 – Disposal Considerations

13.1 Waste treatment methods

Preparing wastes for disposal: Use product for its intended purpose or recycle if possible. Waste should not be disposed of by release to sewers. Dispose of waste in accordance with local, regional, national, and/or international regulations.

Contaminated Packaging: Container packaging is not expected to exhibit hazards.

Section 14 – Transport Information

Note: This product is not regulated as dangerous goods for transport.

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es):	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

Section 15 – Regulatory Information

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

Note: The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in **Section 3**.

European Union

Seveso Directive (2012/18/EU): No ingredients in this product are listed.
Regulation (EC) No. 1005/2009, Annex I and II: No ingredients in this product are listed.
Regulation (EC) No. 689/2008, Annex I, Parts I-III: No ingredients in this product are listed.
Regulation (EC) No. 850/2004, Annex I: No ingredients in this product are listed.

Germany:

Wassergefährdungsklasse (water hazard class): nwg –nicht wassergefährdend (not hazardous to water)

International:

IARC: Crystalline silica (listed as silica dust, crystalline, in the form of quartz or cristobalite) (CAS No. 14808-60-7), and formaldehyde (CAS No. 50-00-0) are listed as Group 1, carcinogenic to humans. Titanium dioxide (CAS No. 13463-67-7) is listed as Group 2B, possibly carcinogenic to humans. C.I. Pigment Red 101 (CAS No. 1309-37-1) is listed as Group 3, not classifiable as to its carcinogenicity to humans. No other ingredients in this product are classified with respect to carcinogenicity.

15.2 Chemical Safety Assessment

- None available for the ingredients in this product.

Section 16 – Other Information

List of acronyms and abbreviations:

ACGIH: American conference of Governmental Hygenists	OSHA: Occupational Safety and Health Administration
CAS: Chemical Abstract Service Number	PBT: Persistent, Bioaccumulative and Toxic
CLP: Classification, Labelling and Packaging Regulation (EC) No. 1272/2008	PEL: Permissible Exposure Level
DFG MAK: Deutsche Forschungsgemeinschaf Maximale Arbeitsplatz-Konzentration	PPE: Personal Protective Equipment
EC: European Commission	REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
ECHA: European Chemicals Agency	REL: Recommended exposure level
IBC: International Bulk Chemical	SDS: Safety Data Sheet
GHS: Global Harmonized System	TLV: Threshold limit value
IARC: International Agency for Research on Cancer	TWA: Time-weighted average
MARPOL: Maritime Pollution	UN: United Nations

NIOSH: National Institute for Occupational Safety & Health	vPvB: very Persistent, very Bioaccumulative
NTP: National Toxicology Program	WGK: Wassergefährdungsklasse

References:

ECHA (European Chemicals Agency). 2025. REACH Registered Substances Database. https://echa.europa.eu/search-for-chemicals

IARC (International Agency for Research on Cancer). 2025. Agents Classified by the IARC Monographs, Volumes 1–129. https://monographs.iarc.who.int/list-of-classifications/

NTP (National Toxicology Program). 2021. Report on Carcinogens, Fifteenth Edition.; Research Triangle Park, NC: U.S. Department of Health and Human Services, Public Health Service. https://ntp.niehs.nih.gov/go/roc15

Disclaimer:

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Revision Indicator: This is a new Safety Data Sheet.

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