

83426-XXXX

Speedball Mid Fire

SAFETY DATA SHEET (SDS)

Version: 01**Date of Issue:** November 22, 2023**According to:** OSHA Hazard Communication Standard
29 CFR 1910.1200(g) Rev. 2012

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

1.1 Product identifier

Product Name: Speedball Mid Fire

Product Colors: Living Coral, Orange Creamsicle, Gossamer Drift, Raspberry Fizz, Variegated Lapis, Storied Sage, Teal Agate, Blue Moss, Midnight Plum, Ethereal Blue, Coriander, Biscotti, Blackcurrant, Wisteria, Night Shade, Green Tourmaline, Buttermilk, Smoke, Blushing White, Blackened Cooper, Champagne Quartz, Jasper

Product sizes: 2 fl. oz. (59.1 mL) - 128 fl. oz. (3.78 L)

Other Means of Identification: None known

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 Art Products Company, LLC
2301 Speedball Rd
Statesville, NC 28677 USA

Business Phone: +1 (704) 838-1475

Email: customerservice@speedballart.com

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: OSHA Hazard Communication Standard 29 CFR 1910.1200(g) Rev. 2012

Health	Environment ^{a, b}	Physical
Not classified	H401: Hazardous to the aquatic environment - short term (acute) hazard (Category 2) H411: Hazardous to the aquatic environment - long term (chronic) hazard (Category 2)	Not classified

^a This SDS applies to the product line, as such the environmental classifications listed do not pertain to all colors. It should be noted that some colors may present environmental concerns to a lesser degree (*i.e.*, Category 3 or 4) and some colors may present no concerns.

^b Environmental hazards are outside the scope of OSHA; therefore, product classification for acute and chronic aquatic toxicity (Category 2) is not mandatory.

2.2. Label elements

Label Pictogram:



Signal Word: Warning

Hazard Statements & Precautions:

Acute aquatic toxicity

(Category 2) (H401)

Chronic aquatic toxicity

(Category 2) (H411)

Toxic to aquatic life with long lasting effects.

P273: Avoid release to the environment.

P391: Collect spillage.

P501: Dispose of contents/container in accordance with local, regional, national, and/or international regulation.

Supplemental Hazard Information: None

2.3. Other hazards

- No other hazards have been identified for this product.

Section 3 – Composition / Information on Ingredients

3.1 Substance

The product is a mixture and not a substance.

3.2 Mixture

Chemical Name	CAS No.	EC No.	% Concentration ^a	GHS Hazards
Crystalline silica (Quartz)	14808-60-7	238-878-4	up to 23.2381%	H350: Carcinogenicity (Category 1) (Inhalation); H372: Specific target organ toxicity (repeated exposure, Category 1, lungs)
Cobalt carbonate	513-79-1	208-169-4	up to 0.7550%	H317: Skin sensitization (Category 1); H334: Respiratory sensitization (Category 1); H341: Germ cell mutagenicity (Category 2); H350: Carcinogenicity (Category 1B) (Inhalation); H360F: Reproductive toxicity (Category 1B; may damage fertility); H400: Hazardous to the aquatic environment - short term (acute) hazard (Category 1); H410: Hazardous to the aquatic environment – long term (chronic) hazard (Category 1)
Zinc oxide	1314-13-2	215-222-5	up to 2.2018%	H371: Specific target organ toxicity (single exposure, Category 2, gastrointestinal tract); H400: Hazardous to the aquatic environment – short term (acute) hazard (Category 1); H410: Hazardous to the aquatic environment – long term (chronic) hazard (Category 1)
Titanium dioxide	13463-67-7	236-675-5	up to 4.4036%	H351: Carcinogenicity (Category 2) (Inhalation)
Feldspar	68476-25-5	270-666-7	up to 15.6811%	H335: Specific target organ toxicity (single exposure, Category 3, respiratory irritation); H319: Eye Irritation (Category 2)

^a Concentrations are calculated as a maximum across all products, rather than by color.

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.

It should be noted that the product may contain quartz (CAS No. 14808-60-7) and titanium dioxide (CAS No. 13463-67-7) 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.

Assessment of this product was based on the assumption that the glaze will not be sanded after it has been fired in the kiln.

Section 4 – First Aid Measures

4.1 Description of first aid measures

Eye contact: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and immediately flush eyes with water. If eye irritation persists, contact 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: No specific first aid measures are required. 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 vapours or 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: No specific precautions required. Keep unauthorized personnel away.

6.2 Environmental precautions:

- Prevent entry and contact with soil, drains, sewers, and waterways. Inform relevant local/regional/national/international authorities. Prevent further leakage or spillage if it is safe to do so.

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 TLVs TWA	OSHA PELs TWA	NIOSH RELs TWA	DFG MAK TWA
Quartz (Silicon dioxide)	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 ^a	N/A	0.3 mg/m ³ ^b R
Zinc oxide	1314-13-2	2 mg/m ³ R	15 mg/m ³ ^a 5 mg/m ³ ^b	5 mg/m ³ (dust only)	0.1 mg/m ³ R
^a Total ^b Respirable			R N/A	Measured as respirable fraction of the aerosol Not applicable	

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:	Liquid	Partition Coefficient n-octanol/water:	Not available
Colour:	See section 1.1	Auto-ignition temperature:	Not available
Odour/Odour threshold:	Not available	Decomposition temperature:	Not available
pH (as supplied):	7 - 8	Dynamic viscosity:	Not available
Melting/freezing point:	Not available	Molecular weight:	Not available
Boiling point/range:	Not available	Taste:	Not available
Flash point:	Not available	Explosive properties:	Not available
Evaporation rate:	Not available	Oxidizing properties:	Not available
Flammability:	Not available	Surface tension:	Not available
Upper/lower explosive limits:	Not available	Volatile component:	Not available
Vapor pressure:	Not available	Gas group:	Not available
Water solubility:	Not available	pH (as solution):	Not available
Vapor density (Air = 1):	Not available	VOC:	Not available
Specific gravity (Water = 1):	Not available	Particle size range:	Not available
Relative density:	Not available		

9.2 Other information

- No further data 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.

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. The oral ATE for the whole product is >5000 mg/kg.
Acute dermal toxicity:	The product is practically non-toxic based on available animal and human use data. The dermal ATE for the whole product is ATE >5000 mg/kg.
Acute inhalation toxicity:	The product is practically nontoxic based on available animal and human use data. The inhalation ATE for the whole product is >5 mg/L.
Skin corrosion/irritation:	The ingredients of this product at >1% are not corrosive to the skin or skin irritants based on human and/or animal studies.
Serious eye damage/irritation:	Feldspar (CAS No. 68476-25-5) has been classified for eye irritation (Category 2). Product classification is not warranted for eye irritation based on a review of available data. The other ingredients in this product >1% are not damaging to the eyes or eye irritants based on human and/or animal studies.
Respiratory or skin sensitization:	Cobalt carbonate (CAS No. 513-79-1) has been classified for skin and respiratory sensitization (Category 1). The other ingredients in this product at >0.1% are not sensitizing to the skin based on human and/or animal studies.
Mutagenicity:	Cobalt carbonate (CAS No. 513-79-1) has been classified for germ cell mutagenicity (Category 2). The other ingredients in the product at >0.1% are not mutagenic based on animal studies or no data identified for the ingredients in this product.
Carcinogenicity:	Quartz (silicon dioxide) (airborne, unbound particles of respirable size) (CAS No. 14808-60-7) has been classified for carcinogenicity (Category 1). Quartz (silicon dioxide) [listed as silica dust, crystalline, in the form of quartz or cristobalite (CAS No. 14808-60-7)] is listed as a carcinogen by IARC, NTP and ACGIH. Titanium dioxide (airborne, unbound particles of respirable size) (CAS No. 13463-67-7) has been classified for carcinogenicity (Category 2). Titanium dioxide (airborne, unbound particles of respirable size) (CAS No. 13463-67-7) is listed as a carcinogen by IARC and ACGIH. Product classification is not warranted for carcinogenicity based on nature of the product (<i>i.e.</i> , liquid glaze). Cobalt carbonate (CAS No. 513-79-1) has been classified for carcinogenicity (Category 1). Product classification is not warranted for carcinogenicity based on nature of the product (<i>i.e.</i> , liquid glaze). The other ingredients in the product >0.1% are not carcinogenic based on animal studies or no data identified for the ingredients in this product.
Reproductive Toxicity:	Cobalt carbonate (CAS No. 513-79-1) has been classified for reproductive toxicity (Category 1B, may damage fertility). Product classification is not warranted for gastrointestinal irritation given the concentration of cobalt carbonate in the product and a review of available data. The other ingredients in the product at >0.1% are not reproductive toxicants based on animal studies or no data identified for the ingredients in this product.
Specific target organ toxicity (single exposure):	Zinc oxide (CAS No. 1314-13-2) has been classified for specific target organ toxicity (single exposure, Category 2; may cause irritation to the gastrointestinal tract through oral exposure). Product classification is not warranted for gastrointestinal irritation given the concentration of zinc oxide in the product and a review of available data. 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 this effect based on a review of available

Specific target organ toxicity (repeated exposure):

data and the nature of the product (*i.e.*, liquid glaze). The other ingredients in this product >1% are not specific target organ toxicity (single exposure) hazards based on animal studies or no data identified for the ingredients in this product

Aspiration hazard:

Quartz (silicon dioxide) (CAS No. 14808-60-7) has been classified for specific target organ toxicity (repeated exposure, Category 1; causes damage to lungs through prolonged or repeated exposure *via* inhalation). Product classification is not warranted for this effect given the nature of the product (*i.e.*, liquid glaze). The other ingredients in this product >1% are not specific target organ toxicity (repeated exposure) hazards based on available information, human and/or animal studies.

The ingredients in the product at >1% are not aspiration hazards based on animal studies or no data identified for the ingredients in this product.

References:

ECHA (European Chemicals Agency). 2023. REACH Registered Substances Database. <https://echa.europa.eu/search-for-chemicals>
 IARC (International Agency for Research on Cancer). 2023. 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>
 Official Journal of the European Union. 2008. Regulation (EC) No 1272/2008. <http://data.europa.eu/eli/reg/2008/1272/2022-03-01>

Section 12 – Ecological Information

12.1 Toxicity

- Environmental hazards are outside the scope of OSHA. Based on the criteria outlined in the 10th revision of the GHS, product classification for acute and chronic aquatic toxicity (Category 2) is warranted which results in the Transportation Information provided in Section 14.

Chemical Name	CAS No.	Species	Result
Cobalt carbonate	513-79-1	<i>Oncorhynchus mykiss</i>	LC ₅₀ : 0.8 mg Co/L
		<i>Ceriodaphnia dubia</i>	LC ₅₀ : 0.61 mg Co/L
		<i>Dendroaster excentricus</i>	LC ₅₀ : 2.32 mg Co/L
		<i>Pseudokirchneriella subcapitata</i>	EC ₅₀ : 95 µg Co/L - 485 µg Co/L
			EC ₁₀ : 22.0 µg Co/L - 296 µg Co/L
		<i>Champia parvula</i>	EC ₅₀ : 24.1 µg Co/L
			EC ₁₀ : 1.23 µg Co/L
		<i>Skeletonema costatum</i>	EC ₅₀ : 100,000 µg Co/L
Zinc oxide	1314-13-2	<i>Dunaliella tertiolecta</i>	EC ₁₀ : 11,961 µg Co/L
		<i>Danio rerio</i>	LC ₅₀ (96h): 1.793 mg/L (bulk ZnO) nominal
			EC ₅₀ (84h): 2.066 mg/L (bulk ZnO) nominal
		<i>Daphnia magna</i>	NOEC (32d): ≥540 µg/L nominal
			EC ₅₀ (48h): >1.4 - <2.5 mg/L nominal
		<i>Daphnia magna</i>	EC ₁₀ (21d): 127 µg/L nominal
			EC ₁₀ (21d): 195 µg/L nominal

12.2 Persistence and degradability

- No data available for the ingredients 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). 2023. 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. Dispose of waste in accordance with local, regional, national, and/or international regulations. The empty container has residues which may exhibit hazards of the product.

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

Section 14 – Transport Information

Note: This product is regulated as dangerous goods for transport.

14.1 UN number	3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3 Transport hazard class(es):	9
14.4 Packing group	III
14.5 Environmental hazards	Chronic
14.6 Special precautions for user	274, 335, 601
14.7 Maritime transport in bulk according to IMO instruments	If the product is transported in bulk, the regulations are applied to the product.

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 – Composition / Information on Ingredients**.

United States**Federal Regulations:****Comprehensive Environmental Response and Liability Act of 1980 (CERCLA):**

Chemical Name	CAS No.	CERCLA RQ
Formaldehyde	50-00-0	100 lbs
1,4-Dioxane	123-91-1	100 lbs
Ethylene oxide	75-21-8	10 lbs
Lead	7439-92-1	10 lbs
Mercury	7439-97-6	1 lbs
Cadmium	7440-43-9	10 lbs

No other ingredients in this product >0.1% are subject to reporting under CERCLA.

Clean Water Act (CWA): Lead (CAS No. 7439-92-1), mercury (CAS No. 7439-97-6) and cadmium (CAS No. 7440-43-9), and chromium (listed as chromium) (CAS No. 7440-47-3) are listed as toxic pollutants. No other ingredients in this product are listed as toxic pollutants.

Clean Air Act (CAA): Ethylene oxide (CAS No. 75-21-8) is listed by the CAA with a threshold quantity of 10,000 lbs. Formaldehyde (CAS No. 50-00-0) is listed by the CAA with a threshold quantity of 15,000 lbs. No other ingredients in this product are listed under the CAA.

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA 302 Ingredients: Ethylene oxide (CAS No. 75-21-8) has a reporting quantity of 1,000 lbs in accordance with S.302. Formaldehyde (CAS No. 50-00-0) has a reporting quantity of 500 lbs in accordance with S.302. No other ingredients in this product are subject to reporting requirements of S.302.

SARA 304 Emergency Release Notification: Ethylene oxide (CAS No. 75-21-8) has a reporting quantity of 10 lbs in accordance with S.304. Formaldehyde (CAS No. 50-00-0) has a reporting quantity of 100 lbs in accordance with S.304. No other ingredients in this product are subject to reporting requirements of S.304.

SARA 311/312 Hazards: None.

SARA 313 Ingredients: Aluminum oxide (fibrous forms) (CAS No. 1344-28-1), 1,4-dioxane (CAS No. 123-91-1), ethylene oxide (CAS No. 75-21-8), lead (CAS No. 7439-92-1), mercury (CAS No. 7439-97-6), cadmium (CAS No. 7440-43-9), cobalt oxide (CAS No. 1308-06-1), vanadium oxide (CAS No. 1314-62-1), and formaldehyde (CAS No. 50-00-0) are subject to reporting requirements of S.313. No other ingredients in this product are subject to reporting requirements of S.313.

Toxic Substances Control Act (TSCA): Colemanite (CAS No. 1318-33-8), ulexite (CAS No. 1319-33-1), tremolite (non-asbestos) (CAS No. 14567-73-8), spodumene (CAS No. 66057-55-4), wollastonite (CAS No. 13983-17-0), methanol, (1H,3H,5H-oxazolo[3,4-c]oxazol-7a(7H)-ylmethoxy)- (CAS No. 59720-42-2), 5-hydroxypoly (methyleneoxy (74% C2, 21% C3, 4% C4, 1% C5) methyl-1-aza-3, 7-dioxabicyclo- (3.3.0) octane (CAS No. 56709-13-8), and nepheline syenite (Nepheline Syenite – various grades) (CAS No. 37244-96-5) are not listed on the TSCA inventory. All other ingredients are listed on the non-confidential TSCA inventory or are exempt.

State Regulations:

California Candidate Chemicals List: Cobalt carbonate (CAS No. 513-79-1), crystalline silica (listed as silica dust, crystalline, in the form of quartz or cristobalite) (CAS No. 14808-60-7), titanium dioxide (airborne particles of respirable size) (CAS No. 13463-67-7), formaldehyde (CAS No. 50-00-0), 1,4-dioxane (CAS No. 123-91-1), ethylene oxide (CAS No. 75-21-8), lead (CAS No. 7439-92-1), mercury (CAS No. 7439-97-6), cadmium (CAS No. 7440-43-9), hexavalent chromium [listed as chromium (VI)] (CAS No. 18540-29-9), cobalt oxide (listed as cobalt [II] oxide) (CAS No. 1307-96-6), and vanadium oxide (listed as vanadium pentoxide) (CAS No. 1314-62-1) are listed on California's Candidate Chemicals List. No other ingredients in this product are listed on the Candidate Chemicals List.

California Proposition 65 List: Crystalline silica (airborne particles of respirable size) (CAS No. 14808-60-7) and titanium dioxide (airborne particles of respirable size) (CAS No. 13463-67-7) are listed on the Proposition 65 List; however, given the nature/physical form of the product (*i.e.*, liquid glaze), airborne respirable particles would not likely be released from this product and therefore the listed forms of titanium dioxide and crystalline silica are not relevant for the product. Formaldehyde [formaldehyde (gas)] (CAS No. 50-00-0), 1,4-dioxane (CAS No. 123-91-1), ethylene oxide (CAS No. 75-21-8), lead (also listed as lead and lead compounds) (CAS No. not specified), mercury (listed as mercury and mercury compounds) (CAS No. not specified), cadmium (also listed as cadmium and cadmium compounds) (CAS No. 7440-43-9), hexavalent chromium [listed as chromium (hexavalent compounds)] (CAS No. not specified), cobalt oxide (listed as cobalt [II] oxide) (CAS No. 1307-96-6), and vanadium oxide [listed as vanadium pentoxide (orthorhombic crystalline form)] (CAS No. 1314-62-1) are listed on the Proposition 65 List. Warnings for the purpose of California Proposition 65 for cobalt oxide and vanadium oxide are not warranted given the nature/physical form of the product (*i.e.*, liquid glaze). Additionally, a screening assessment indicates that the concentrations of 1,4-dioxane, ethylene oxide, lead, mercury, cadmium, and hexavalent chromium are not expected to be a cause for concern and warnings for the purpose of California Proposition 65 are not required.

Maine List of Chemicals of High Concern: Given the product is not considered to be a toy and is not intended for use by children, the List of Chemicals of High Concern is not applicable to the product.

Massachusetts Toxic or Hazardous Substance List: Crystalline silica (CAS No. 14808 60-7), formaldehyde (CAS No. 50-00-0), cadmium (listed as cadmium and cadmium compounds) (CAS No. 7440-43-9), and hexavalent chromium (CAS No. not specified) are listed on the Toxic or Hazardous Substance List. No other ingredients in this product are listed on the Toxic or Hazardous Substance List.

Minnesota Chemicals of High Concern List and Priority List: Cobalt carbonate [listed as cobalt(II) carbonate] (CAS No. 513-79-1), crystalline silica [listed as silica, crystalline (respirable size)] (CAS No. 14808-60-7), titanium dioxide (CAS No. 13463-67-7), formaldehyde (CAS No. 50-00-0), 1,4-dioxane (CAS No. 123-91-1), ethylene oxide (CAS No. 75-21-8), lead (listed as lead subacetate) (CAS No. 1335-32-6), mercury (CAS No. 7439-97-6), cadmium (CAS No. 7440 43-9), hexavalent chromium [listed as chromium(VI)] (CAS No. 18540-29-9), cobalt oxide (listed as cobalt [II] oxide) (CAS No. 1307-96-6), and vanadium oxide [listed as vanadium pentoxide (orthorhombic crystalline form)] (CAS No. 1314-62-1) are listed on the Chemicals of High Concern and Priority list. No other ingredients in this product are listed on the Chemicals of High Concern and Priority list.

New Jersey Right to Know Hazardous Substance List: Kaolinite (listed as kaolin) (CAS No. 1332-58-7), iron oxide (CAS No. 1309-37-1), aluminum oxide (CAS No. 1344-28-1), silicon carbide (CAS No. 409-21-2), glyoxal (CAS No. 107-22-2), borates (listed as borate compounds (CAS No. not specified), crystalline silica (listed as silica, quartz) (CAS No. 14808-60-7), titanium dioxide (CAS No. 13463-67-7), formaldehyde (CAS No. 50-00-0), 1,4-dioxane (CAS No. 123-91-1), ethylene oxide (CAS No. 75-21-8), lead (CAS No. 7439-92-1), mercury (mercury, elemental and inorganic compounds) (CAS No. 7439-97-6), cadmium (CAS No. 7440 43-9), hexavalent chromium (listed as chromium

VI compounds) (CAS No. not specified), cobalt oxide (listed as cobalt compounds) (CAS No. not specified), and vanadium oxide (listed as vanadium pentoxide) (CAS No. 1314-62-1) are listed on the Right to Know Hazardous Substance List. No other ingredients are listed on the Right to Know Hazardous Substance List.

Pennsylvania Hazardous Substance List: Kaolinite (listed as kaolin) (CAS No. 1332-58-7), iron oxide (CAS No. 1309-37-1), aluminum oxide (CAS No. 1344-28-1), silicon carbide (CAS No. 409-21-2), silicon dioxide, amorphous (listed as silica) (CAS No. 7631-86-9), crystalline silica [listed as quartz (SiO_2)] (CAS No. 14808-60-7), titanium dioxide [listed as titanium oxide (TiO_2)] (CAS No. 13463-67-7), formaldehyde (CAS No. 50-00-0), 1,4-dioxane (CAS No. 123-91-1), ethylene oxide (listed as oxirane) (CAS No. 75-21-8), lead (CAS No. 7439-92-1), mercury (mercury, elemental and inorganic compounds) (CAS No. 7439-97-6), cadmium (CAS No. 7440 43-9), hexavalent chromium [listed as chromium, ion (Cr^{6+})] (CAS No. 18540-29-9), cobalt oxide (listed as cobalt) (CAS No. 7440-48-4), and vanadium oxide [listed as vanadium oxide (V_2O_5)] (CAS No. 1314-62-1) are listed on the Hazardous Substance List. No other ingredients in this product are listed on the Hazardous Substance List.

Vermont Chemicals of High Concern to Children: Given the product is not considered to be a toy and is not intended for use by children, the Chemicals of High Concern to Children list is not applicable to the product.

Washington Chemicals of High Concern to Children: Given the product is not considered to be a toy and is not intended for use by children, the Chemicals of High Concern to Children list is not applicable to the product.

International:

IARC: Crystalline silica (listed as silica dust, crystalline, in the form of quartz or cristobalite) (CAS No. 14808-60-7), formaldehyde (CAS No. 50-00-0), ethylene oxide (CAS No. 75-21-8), cadmium (listed as cadmium and cadmium compounds) (CAS No. 7440-43-9), and hexavalent chromium (listed as chromium, metallic) (CAS No. 7440-47-3) are listed as Group 1, carcinogenic to humans. Silicon carbide (CAS No. 409-21-2) is listed as Group 2A, probably carcinogenic to humans. Titanium dioxide (CAS No. 13463-67-7), 1,4-dioxane (CAS No. 123-91-1), lead (CAS No. 7439-92-1), cobalt (II, III) oxide (CAS No. 1308-06-1), and vanadium oxide [(listed as vanadium pentoxide (orthorhombic crystalline form)] (CAS No. 1314-62-1) are listed as Group 2B, possibly carcinogenic to humans. Iron oxide (listed as ferric oxide) (CAS No. 1309-37-1), free crystalline silica (respirable fraction) (listed as silica, amorphous) (CAS No. 7631-86-9), mercury (CAS No. 7439-97-6), and wollastonite (CAS No. 13983-17-0) are 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

ACMI Seal

The product, Speedball Mid Fire [Living Coral, Orange Creamsicle, Gossamer Drift, Raspberry Fizz, Variegated Lapis, Storied Sage, Teal Agate, Blue Moss, Midnight Plum, Ethereal Blue, Coriander, Biscotti, Blackcurrant, Wisteria, Night Shade, Green Tourmaline, Buttermilk, Smoke, Blushing White, Blackened Cooper, Champagne Quartz, Jasper], is safe and is certified to contain no materials in sufficient quantities to be toxic or injurious to humans, including children, or to cause acute or chronic health problems.



List of acronyms and abbreviations:

ACGIH: American conference of Governmental Hygienists	OSHA: Occupational Safety and Health Administration
ATE: Acute Toxicity Estimate	PBT: Persistent, Bioaccumulative and Toxic
CAA: Clean Air Act	PEL: Permissible Exposure Level
CAS: Chemical Abstract Service Number	PPE: Personal Protective Equipment
CERCLA: Comprehensive Environmental Response and Liability Act	REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
CFR: Code of Federal Regulations	REL: Recommended exposure level
CWA: Clean Water Act	RQ: Reportable quantity
DFG MAK: Deutsche Forschungsgemeinschaft Maximale Arbeitsplatz-Konzentration	SARA: Superfund Amendment and Reauthorization Act
EC: European Commission	SDS: Safety Data Sheet
ECHA: European Chemicals Agency	STOT RE: Specific target organ toxicity (repeated exposure)
GHS: Global Harmonized System	TLV: Threshold limit value
HEPA: High Efficiency Particulate Air	TWA: Time-weighted average
IARC: International Agency for Research on Cancer	TSCA: Toxic Substances Control Act
IBC: International Bulk Chemical	UN: United Nations
MARPOL: Maritime Pollution	vPvB: very Persistent, very Bioaccumulative
NIOSH: National Institute for Occupational Safety & Health	

References:

ECHA (European Chemicals Agency). 2023. REACH Registered Substances Database. <https://echa.europa.eu/search-for-chemicals>

IARC (International Agency for Research on Cancer). 2023. 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>

Official Journal of the European Union. 2008. Regulation (EC) No 1272/2008. <http://data.europa.eu/eli/reg/2008/1272/2022-03-01>

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.

Creation Date: November 22, 2023

Speedball Mid Fire

SAFETY DATA SHEET (SDS)

Version: 01

Date of Issue: November 22, 2023

According to: OSHA Hazard Communication Standard
29 CFR 1910.1200(g) Rev. 2012

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

1.1 Product identifier

Product Name: Speedball Mid Fire

Product Colors: Hematite, Sea Glass, Blue Tigger's Eye, Basque Green, Lavender Mist, Dragon Stone, Blue Topaz, Prussian Jade

Product sizes: 2 fl. oz. (59.1 mL) - 128 fl. oz. (3.78 L)

Other Means of Identification: None known

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 Art Products Company, LLC
2301 Speedball Rd
Statesville, NC 28677 USA

Business Phone: +1 (704) 838-1475

Email: customerservice@speedballart.com

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: OSHA Hazard Communication Standard 29 CFR 1910.1200(g) Rev. 2012

Health	Environment ^{a, b}	Physical
H371: Specific target organ toxicity (single exposure, Category 2, gastrointestinal tract)	H400: Hazardous to the aquatic environment - short term (acute) hazard (Category 1) H410: Hazardous to the aquatic environment - long term (chronic) hazard (Category 1)	Not classified

^a This SDS applies to the product line, as such the environmental classifications listed do not pertain to all colors. It should be noted that some colors may present environmental concerns to a lesser degree (i.e., Category 2, 3 or 4) and some colors may present no concerns.

^b Environmental hazards are outside the scope of OSHA; therefore, product classification for acute and chronic aquatic toxicity (Category 1) is not mandatory.

2.2. Label elements

Label Pictogram:



Signal Word: Warning**Hazard Statements & Precautions:****Specific target organ toxicity
(single exposure, Category 2,
gastrointestinal tract) (H371)****May cause irritation to gastrointestinal tract through oral exposure.****P260:** Do not breathe mist/vapour/spray.**P264:** Wash hands thoroughly after handling.**P270:** Do not eat, drink or smoke when using this product.**P308 + P316:** IF exposed or concerned: Get emergency medical help immediately.**P405:** Store locked up.**P501:** Dispose of contents/container in accordance with local/regional/national/and/or international regulations.**Acute aquatic toxicity
(Category 1) (H400)
Chronic aquatic toxicity
(Category 1) (H410)****Very toxic to aquatic life with long lasting effects.****P273:** Avoid release to the environment.**P391:** Collect spillage.**P501:** Dispose of contents/container in accordance with local, regional, national, and/or international regulation.**Supplemental Hazard Information:** None**2.3. Other hazards**

- No other hazards have been identified for this product.

Section 3 – Composition / Information on Ingredients**3.1 Substance**

The product is a mixture and not a substance.

3.2 Mixture

Chemical Name	CAS No.	EC No.	% Concentration ^a	GHS Hazards
Crystalline silica (Quartz)	14808-60-7	238-878-4	up to 18.8534%	H350: Carcinogenicity (Category 1) (Inhalation); H372: Specific target organ toxicity (repeated exposure, Category 1, lungs)
Copper carbonate	12069-69-1	235-113-6	up to 3.0350%	H371: Specific target organ toxicity (single exposure, Category 2, gastrointestinal tract); H302: Acute toxicity - oral (Category 4); H332: Acute toxicity - inhalation (Category 4); H319: Eye Irritation (Category 2); H400: Hazardous to the aquatic environment - short term (acute) hazard (Category 1); H410: Hazardous to the aquatic environment – long term (chronic) hazard (Category 1)
Zinc oxide	1314-13-2	215-222-5	up to 1.6977%	H371: Specific target organ toxicity (single exposure, Category 2, gastrointestinal tract); H400: Hazardous to the aquatic environment – short term (acute) hazard (Category 1); H410: Hazardous to the aquatic environment – long term (chronic) hazard (Category 1)
Titanium dioxide	13463-67-7	236-675-5	up to 2.9000%	H351: Carcinogenicity (Category 2) (Inhalation)
Feldspar	68476-25-5	270-666-7	up to 19.2409%	H335: Specific target organ toxicity (single exposure, Category 3, respiratory irritation); H319: Eye Irritation (Category 2)

^a Concentrations are calculated as a maximum across all products, rather than by color.

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.

It should be noted that the product may contain quartz (CAS No. 14808-60-7) and titanium dioxide (CAS No. 13463-67-7) 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.

Assessment of this product was based on the assumption that the glaze will not be sanded after it has been fired in the kiln.

Section 4 – First Aid Measures

4.1 Description of first aid measures

Eye contact: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and immediately flush eyes with water. If eye irritation persists, contact 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: No specific first aid measures are required. 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 vapours or 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: No specific precautions required. Keep unauthorized personnel away.

6.2 Environmental precautions:

- Prevent entry and contact with soil, drains, sewers, and waterways. Inform relevant local/regional/national/international authorities. Prevent further leakage or spillage if it is safe to do so.

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 TLVs TWA	OSHA PELs TWA	NIOSH RELs TWA	DFG MAK TWA
Quartz (Silicon dioxide)	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 ^a	N/A	0.3 mg/m ³ ^b R
Zinc oxide	1314-13-2	2 mg/m ³ R	15 mg/m ³ ^a 5 mg/m ³ ^b	5 mg/m ³ (dust only)	0.1 mg/m ³ R
^a Total ^b Respirable			R N/A	Measured as respirable fraction of the aerosol Not applicable	

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:	Liquid	Partition Coefficient n-octanol/water:	Not available
Physical state:	See section 1.1	Auto-ignition temperature:	Not available
Colour:	Not available	Decomposition temperature:	Not available
Odour/Odour threshold:	Not available	Dynamic viscosity:	Not available
pH (as supplied):	7 - 8	Molecular weight:	Not available
Melting/freezing point:	Not available	Taste:	Not available
Boiling point/range:	Not available	Explosive properties:	Not available
Flash point:	Not available	Oxidizing properties:	Not available
Evaporation rate:	Not available	Surface tension:	Not available
Flammability:	Not available	Volatile component:	Not available
Upper/lower explosive limits:	Not available	Gas group:	Not available
Vapor pressure:	Not available	pH (as solution):	Not available
Water solubility:	Not available	VOC:	Not available
Vapor density (Air = 1):	Not available	Particle size range:	Not available
Specific gravity (Water = 1):	Not available		
Relative density:	Not available		

9.2 Other information

- No further data 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.

Potential signs and symptoms: None expected under conditions of normal use.

Acute oral toxicity:	Copper carbonate (CAS No. 12069-69-1) has been classified for acute oral toxicity (Category 4); however, the product is practically nontoxic based on available animal and human use data. The oral ATE for the whole product is >5000 mg/kg.
Acute dermal toxicity:	The product is practically non-toxic based on available animal and human use data. The dermal ATE for the whole product is ATE >5000 mg/kg.
Acute inhalation toxicity:	Copper carbonate (CAS No. 12069-69-1) has been classified for acute inhalation toxicity (Category 4); however, the product is practically non-toxic based on available animal and human use data. The inhalation ATE for the whole product is >5 mg/L.
Skin corrosion/irritation:	The ingredients of this product at >1% are not corrosive to the skin or skin irritants based on human and/or animal studies.
Serious eye damage/irritation:	Feldspar (CAS No. 68476-25-5) and copper carbonate (CAS No. 12069-69-1) have been classified for eye irritation (Category 2). Product classification is not warranted for eye irritation based on a review of available data. The other ingredients in this product >1% are not damaging to the eyes or eye irritants based on human and/or animal studies.
Respiratory or skin sensitization:	The ingredients in this product at >0.1% are not sensitizing to the skin based on human and/or animal studies.
Mutagenicity:	The ingredients in the product at >0.1% are not mutagenic based on animal studies or no data identified for the ingredients in this product.
Carcinogenicity:	Quartz (silicon dioxide) (airborne, unbound particles of respirable size) (CAS No. 14808-60-7) has been classified for carcinogenicity (Category 1). Quartz (silicon dioxide) [listed as silica dust, crystalline, in the form of quartz or cristobalite (CAS No. 14808-60-7)] is listed as a carcinogen by IARC, NTP and ACGIH. Titanium dioxide (airborne, unbound particles of respirable size) (CAS No. 13463-67-7) has been classified for carcinogenicity (Category 2). Titanium dioxide (airborne, unbound particles of respirable size) (CAS No. 13463-67-7) is listed as a carcinogen by IARC and ACGIH. Product classification is not warranted for carcinogenicity based on nature of the product (<i>i.e.</i> , liquid glaze). The other ingredients in the product >0.1% are not carcinogenic based on animal studies or no data identified for the ingredients in this product.
Reproductive Toxicity:	The ingredients in the product at >0.1% are not reproductive toxicants based on animal studies or no data identified for the ingredients in this product.
Specific target organ toxicity (single exposure):	Copper carbonate (CAS No. 12069-69-1) and zinc oxide (CAS No. 1314-13-2) have been classified for specific target organ toxicity (single exposure, Category 2; may cause irritation to the gastrointestinal tract through oral exposure). Product classification is warranted for gastrointestinal irritation given the concentration of copper carbonate in the product and a review of available data. 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 this effect based on a review of available data and the nature of the product (*i.e.*, liquid glaze). The other ingredients in this product >1% are not specific target organ toxicity (single exposure) hazards based on animal studies or no data identified for the ingredients in this product

Specific target organ toxicity (repeated exposure):

Quartz (silicon dioxide) (CAS No. 14808-60-7) has been classified for specific target organ toxicity (repeated exposure, Category 1; causes damage to lungs through prolonged or repeated exposure *v/a* inhalation). Product classification is not warranted for this effect given the nature of the product (*i.e.*, liquid glaze). The other ingredients in this product >1% are not specific target organ toxicity (repeated exposure) hazards based on available information, human and/or animal studies.

Aspiration hazard:

The ingredients in the product at >1% are not aspiration hazards based on animal studies or no data identified for the ingredients in this product.

References:

ECHA (European Chemicals Agency). 2023. REACH Registered Substances Database. <https://echa.europa.eu/search-for-chemicals>
 IARC (International Agency for Research on Cancer). 2023. 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>
 Official Journal of the European Union. 2008. Regulation (EC) No 1272/2008. <http://data.europa.eu/eli/reg/2008/1272/2022-03-01>

Section 12 – Ecological Information

12.1 Toxicity

- Environmental hazards are outside the scope of OSHA. Based on the criteria outlined in the 10th revision of the GHS, product classification for acute and chronic aquatic toxicity (Category 1) is warranted which results in the Transportation Information provided in Section 14.

Chemical Name	CAS No.	Species	Result
Copper carbonate	12069-69-1	Not specified	L(E)C ₅₀ : 34.4 µg Cu/L
		Not specified	NOEC: 14.9 µg Cu/L
Zinc oxide	1314-13-2	<i>Danio rerio</i>	LC ₅₀ (96h): 1.793 mg/L (bulk ZnO) nominal EC ₅₀ (84h): 2.066 mg/L (bulk ZnO) nominal
		<i>Danio rerio</i>	NOEC (32d): ≥540 µg/L nominal
		<i>Daphnia magna</i>	EC ₅₀ (48h): >1.4 - <2.5 mg/L nominal
		<i>Daphnia magna</i>	EC ₁₀ (21d): 127 µg/L nominal EC ₁₀ (21d): 195 µg/L nominal

12.2 Persistence and degradability

- No data available for the ingredients 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). 2023. 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. Dispose of waste in accordance with local, regional, national, and/or international regulations. The empty container has residues which may exhibit hazards of the product.

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

Section 14 – Transport Information

Note: This product is regulated as dangerous goods for transport.

14.1 UN number	3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3 Transport hazard class(es):	9
14.4 Packing group	III
14.5 Environmental hazards	Acute and Chronic
14.6 Special precautions for user	274, 335, 601
14.7 Maritime transport in bulk according to IMO instruments	If the product is transported in bulk, the regulations are applied to the product.

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 – Composition / Information on Ingredients**.

United States**Federal Regulations:****Comprehensive Environmental Response and Liability Act of 1980 (CERCLA):**

Chemical Name	CAS No.	CERCLA RQ
Formaldehyde	50-00-0	100 lbs
1,4-Dioxane	123-91-1	100 lbs
Ethylene oxide	75-21-8	10 lbs
Lead	7439-92-1	10 lbs
Mercury	7439-97-6	1 lbs
Cadmium	7440-43-9	10 lbs

No other ingredients in this product >0.1% are subject to reporting under CERCLA.

Clean Water Act (CWA): Lead (CAS No. 7439-92-1), mercury (CAS No. 7439-97-6) and cadmium (CAS No. 7440-43-9), and chromium (listed as chromium) (CAS No. 7440-47-3) are listed as toxic pollutants. No other ingredients in this product are listed as toxic pollutants.

Clean Air Act (CAA): Ethylene oxide (CAS No. 75-21-8) is listed by the CAA with a threshold quantity of 10,000 lbs. Formaldehyde (CAS No. 50-00-0) is listed by the CAA with a threshold quantity of 15,000 lbs. No other ingredients in this product are listed under the CAA.

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA 302 Ingredients: Ethylene oxide (CAS No. 75-21-8) has a reporting quantity of 1,000 lbs in accordance with S.302. Formaldehyde (CAS No. 50-00-0) has a reporting quantity of 500 lbs in accordance with S.302. No other ingredients in this product are subject to reporting requirements of S.302.

SARA 304 Emergency Release Notification: Ethylene oxide (CAS No. 75-21-8) has a reporting quantity of 10 lbs in accordance with S.304. Formaldehyde (CAS No. 50-00-0) has a reporting quantity of 100 lbs in accordance with S.304. No other ingredients in this product are subject to reporting requirements of S.304.

SARA 311/312 Hazards: None.

SARA 313 Ingredients: Aluminum oxide (fibrous forms) (CAS No. 1344-28-1), 1,4-dioxane (CAS No. 123-91-1), ethylene oxide (CAS No. 75-21-8), lead (CAS No. 7439-92-1), mercury (CAS No. 7439-97-6), cadmium (CAS No. 7440-43-9), cobalt oxide (CAS No. 1308-06-1), vanadium oxide (CAS No. 1314-62-1), and formaldehyde (CAS No. 50-00-0) are subject to reporting requirements of S.313. No other ingredients in this product are subject to reporting requirements of S.313.

Toxic Substances Control Act (TSCA): Colemanite (CAS No. 1318-33-8), ulexite (CAS No. 1319-33-1), tremolite (non-asbestos) (CAS No. 14567-73-8), wollastonite (CAS No. 13983-17-0), methanol, (1H,3H,5H-oxazolo[3,4-c]oxazol-7a(7H)-ylmethoxy)- (CAS No. 59720-42-2), and 5-hydroxypoly (methyleneoxy (74% C2, 21% C3, 4% C4, 1% C5) methyl-1-aza-3, 7-dioxabicyclo- (3.3.0) octane (CAS No. 56709-13-8) are not listed on the TSCA inventory. All other ingredients are listed on the non-confidential TSCA inventory or are exempt.

State Regulations:

California Candidate Chemicals List: Crystalline silica (listed as silica dust, crystalline, in the form of quartz or cristobalite) (CAS No. 14808-60-7), titanium dioxide (airborne particles of respirable size) (CAS No. 13463-67-7), formaldehyde (CAS No. 50-00-0), 1,4-dioxane (CAS No. 123-91-1), ethylene oxide (CAS No. 75-21-8), lead (CAS No. 7439-92-1), mercury (CAS No. 7439-97-6), cadmium (CAS No. 7440-43-9), hexavalent chromium [listed as chromium (VI)] (CAS No. 18540-29-9), cobalt oxide (listed as cobalt [II] oxide) (CAS No. 1307-96-6), and vanadium oxide (listed as vanadium pentoxide) (CAS No. 1314-62-1) are listed on California's Candidate Chemicals List. No other ingredients in this product are listed on the Candidate Chemicals List.

California Proposition 65 List: Crystalline silica (airborne particles of respirable size) (CAS No. 14808-60-7) and titanium dioxide (airborne particles of respirable size) (CAS No. 13463-67-7) are listed on the Proposition 65 List; however, given the nature/physical form of the product (*i.e.*, liquid glaze), airborne respirable particles would not likely be released from this product and therefore the listed forms of titanium dioxide and crystalline silica are not relevant for the product. Formaldehyde [formaldehyde (gas)] (CAS No. 50-00-0), 1,4-dioxane (CAS No. 123-91-1), ethylene oxide (CAS No. 75-21-8), lead (also listed as lead and lead compounds) (CAS No. not specified), mercury (listed as mercury and mercury compounds) (CAS No. not specified), cadmium (also listed as cadmium and cadmium compounds) (CAS No. 7440-43-9), hexavalent chromium [listed as chromium (hexavalent compounds)] (CAS No. not specified), cobalt oxide (listed as cobalt [II] oxide) (CAS No. 1307-96-6), and vanadium oxide [listed as vanadium pentoxide (orthorhombic crystalline form)] (CAS No. 1314-62-1) are listed on the Proposition 65 List. Warnings for the purpose of California Proposition 65 for cobalt oxide and vanadium oxide are not warranted given the nature/physical form of the product (*i.e.*, liquid glaze). Additionally, a screening assessment indicates that the concentrations of 1,4-dioxane, ethylene oxide, lead, mercury, cadmium, and hexavalent chromium are not expected to be a cause for concern and warnings for the purpose of California Proposition 65 are not required.

Maine List of Chemicals of High Concern: Given the product is not considered to be a toy and is not intended for use by children, the List of Chemicals of High Concern is not applicable to the product.

Massachusetts Toxic or Hazardous Substance List: Crystalline silica (CAS No. 14808 60-7), formaldehyde (CAS No. 50-00-0), cadmium (listed as cadmium and cadmium compounds) (CAS No. 7440-43-9), and hexavalent chromium (CAS No. not specified) are listed on the Toxic or Hazardous Substance List. No other ingredients in this product are listed on the Toxic or Hazardous Substance List.

Minnesota Chemicals of High Concern List and Priority List: Crystalline silica [listed as silica, crystalline (respirable size)] (CAS No. 14808-60-7), titanium dioxide (CAS No. 13463-67-7), formaldehyde (CAS No. 50-00-0), 1,4-dioxane (CAS No. 123-91-1), ethylene oxide (CAS No. 75-21-8), lead (listed as lead subacetate) (CAS No. 1335-32-6), mercury (CAS No. 7439-97-6), cadmium (CAS No. 7440 43-9), hexavalent chromium [listed as chromium(VI)] (CAS No. 18540-29-9), cobalt oxide (listed as cobalt [II] oxide) (CAS No. 1307-96-6), and vanadium oxide [listed as vanadium pentoxide (orthorhombic crystalline form)] (CAS No. 1314-62-1) are listed on the Chemicals of High Concern and Priority list. No other ingredients in this product are listed on the Chemicals of High Concern and Priority list.

New Jersey Right to Know Hazardous Substance List: Kaolin (listed as kaolin) (CAS No. 1332-58-7), iron oxide (CAS No. 1309-37-1), aluminum oxide (CAS No. 1344-28-1), silicon carbide (CAS No. 409-21-2), glyoxal (CAS No. 107-22-2), borates (listed as borate compounds (CAS No. not specified), crystalline silica (listed as silica, quartz) (CAS No. 14808-60-7), titanium dioxide (CAS No. 13463-67-7), formaldehyde (CAS No. 50-00-0), 1,4-dioxane (CAS No. 123-91-1), ethylene oxide (CAS No. 75-21-8), lead (CAS No. 7439-92-1), mercury (mercury, elemental and inorganic compounds) (CAS No. 7439-97-6), cadmium (CAS No. 7440 43-9), hexavalent chromium (listed as chromium VI compounds) (CAS No. not specified), cobalt oxide (listed as cobalt compounds) (CAS No. not specified), and vanadium oxide (listed as vanadium pentoxide) (CAS No. 1314-62-1) are listed on the Right to Know Hazardous Substance List. No other ingredients are listed on the Right to Know Hazardous Substance List.

Pennsylvania Hazardous Substance List: Kaolin (listed as kaolin) (CAS No. 1332-58-7), iron oxide (CAS No. 1309-37-1), aluminum oxide (CAS No. 1344-28-1), silicon carbide (CAS No. 409-21-2), silicon dioxide, amorphous (listed as silica) (CAS No. 7631-86-9), crystalline silica [listed as quartz (SiO₂)] (CAS No. 14808-60-7), titanium dioxide [listed as titanium oxide (TiO₂)] (CAS No. 13463-67-7), formaldehyde (CAS No. 50-00-0), 1,4-dioxane (CAS No. 123-91-1), ethylene oxide (listed as oxirane) (CAS No. 75-21-8), lead (CAS No. 7439-92-1), mercury (mercury, elemental and inorganic compounds) (CAS No. 7439-97-6), cadmium (CAS No. 7440 43-9), hexavalent chromium [listed as chromium, ion (Cr⁶⁺)] (CAS No. 18540-29-9), cobalt oxide (listed as cobalt) (CAS No. 7440-48-4), and vanadium oxide [listed as vanadium oxide (V₂O₅)] (CAS No. 1314-62-1) are listed on the Hazardous Substance List. No other ingredients in this product are listed on the Hazardous Substance List.

Vermont Chemicals of High Concern to Children: Given the product is not considered to be a toy and is not intended for use by children, the Chemicals of High Concern to Children list is not applicable to the product.

Washington Chemicals of High Concern to Children: Given the product is not considered to be a toy and is not intended for use by children, the Chemicals of High Concern to Children list is not applicable to the product.

International:

IARC: Crystalline silica (listed as silica dust, crystalline, in the form of quartz or cristobalite) (CAS No. 14808-60-7), formaldehyde (CAS No. 50-00-0), ethylene oxide (CAS No. 75-21-8), cadmium (listed as cadmium and cadmium compounds) (CAS No. 7440-43-9), and hexavalent chromium (listed as chromium, metallic) (CAS No. 7440-47-3) are listed as Group 1, carcinogenic to humans. Silicon carbide (CAS No. 409-21-2) is listed as Group 2A, probably carcinogenic to humans. Titanium dioxide (CAS No. 13463-67-7), 1,4-dioxane (CAS No. 123-91-1), lead (CAS No. 7439-92-1), cobalt (II, III) oxide (CAS No. 1308-06-1), and vanadium oxide [(listed as vanadium pentoxide (orthorhombic crystalline form)] (CAS No. 1314-62-1) are listed as Group 2B, possibly carcinogenic to humans. Iron oxide (listed as ferric oxide) (CAS No. 1309-37-1), free crystalline silica (respirable fraction) (listed as silica, amorphous) (CAS No. 7631-86-9), mercury (CAS No. 7439-97-6), and wollastonite (CAS No. 13983-17-0) are 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

ACMI Seal

The product, Speedball Mid Fire [Hematite, Sea Glass, Blue Tiger's Eye, Basque Green, Lavender Mist, Dragon Stone, Blue Topaz, Prussian Jade], must be properly labeled for known health risk [*i.e.*, gastrointestinal irritation as a result of acute oral exposure] and should reflect the ACMI CL Seal.



List of acronyms and abbreviations:

ACGIH: American conference of Governmental Hygienists	OSHA: Occupational Safety and Health Administration
ATE: Acute Toxicity Estimate	PBT: Persistent, Bioaccumulative and Toxic
CAA: Clean Air Act	PEL: Permissible Exposure Level
CAS: Chemical Abstract Service Number	PPE: Personal Protective Equipment
CERCLA: Comprehensive Environmental Response and Liability Act	REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
CFR: Code of Federal Regulations	REL: Recommended exposure level
CWA: Clean Water Act	RQ: Reportable quantity
DFG MAK: Deutsche Forschungsgemeinschaft Maximale Arbeitsplatz-Konzentration	SARA: Superfund Amendment and Reauthorization Act
EC: European Commission	SDS: Safety Data Sheet
ECHA: European Chemicals Agency	STOT RE: Specific target organ toxicity (repeated exposure)
GHS: Global Harmonized System	TLV: Threshold limit value
HEPA: High Efficiency Particulate Air	TWA: Time-weighted average
IARC: International Agency for Research on Cancer	TSCA: Toxic Substances Control Act
IBC: International Bulk Chemical	UN: United Nations
MARPOL: Maritime Pollution	vPvB: very Persistent, very Bioaccumulative
NIOSH: National Institute for Occupational Safety & Health	

References:

ECHA (European Chemicals Agency). 2023. REACH Registered Substances Database. <https://echa.europa.eu/search-for-chemicals>

IARC (International Agency for Research on Cancer). 2023. 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>

Official Journal of the European Union. 2008. Regulation (EC) No 1272/2008. <http://data.europa.eu/eli/reg/2008/1272/2022-03-01>

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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