

Speedball Underglazes

SAFETY DATA SHEET (SDS)

Version: 01

Date of Issue: October 06, 2022

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 Underglazes
Product sizes: 2 fl oz (59.1 mL) and 16 fl oz (473.2 mL)
Other Means of Identification: None known
Product Description: Colored liquid glaze formulations intended to be applied with a brush.

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	Environmental	Physical
Not classified	Not classified	Not classified

2.2. Label elements

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

2.3. Other hazards

- No other hazards have been identified for this product

Section 3 – Composition / Information on Ingredients

Mixture

Chemical Name	CAS No.	EC No.	% Concentration ^a	GHS Hazards
Olivine, cobalt silicate blue	68187-40-6	269-093-5	up to 12.44%	H331: Acute Tox. 3 (Inhalation); H317: Skin Sens. 1; H360F: Repr. 1B (May damage fertility); H361D: Repr. 2 (Suspected of damaging the unborn child)
Silica, crystalline	14808-60-7	238-878-4	up to 18.00%	H350: Carc 1 (Inhalation); H372: STOT RE 1 (Causes damage to lungs through prolonged or repeated exposure via inhalation)
Titanium dioxide	13463-67-7	236675-5	up to 0.18%	H351: Carc. 2 (Inhalation)

^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.

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

It should be noted that the product may contain silica, crystalline (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) airborne respirable particles would not likely be released from the product and therefore the hazard is not relevant to the product.

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. Seek medical attention if in doubt.

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: Not available.

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 TLV TWA	OSHA PEL TWA	NIOSH REL TWA	DFG MAK
Silica, crystalline	14808-60-7	0.025 mg/m ³ R	0.05 mg/m ³ **	0.05 mg/m ³ **	-
Titanium dioxide	13463-67-7	10 mg/m ³	15 mg/m ³ *		0.3 mg/m ³ R
* Total dust			R Measured as respirable fraction of the aerosol.		
** Respirable dust					

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:	Various	Auto-ignition temperature:	Not available
Odour/Odour threshold:	Not available	Decomposition temperature:	Not available
pH (as supplied):	Not available	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 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. ATE >5000 mg/kg
Acute dermal toxicity:	The product is practically non-toxic based on available animal and human use data. ATE >5000 mg/kg
Acute inhalation toxicity:	The product is practically nontoxic based on available animal and human use data.
Skin corrosion/irritation:	The components 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:	The components of this product at >1% are not damaging to the eyes or eye irritants based on human and/or animal studies.
Respiratory or skin sensitization:	Olivine, cobalt silicate blue (CAS No. 68187-40) has been classified for skin sensitization; however, product classification is not warranted based on a review of available data. The other components in this product at >0.1% are not sensitizing to the skin based on human and/or animal studies.
Mutagenicity:	The components in the product at >0.1% are not mutagenic based on animal studies or no data identified for the components in this product.
Carcinogenicity:	Silica, crystalline (airborne, unbound particles of respirable size) (CAS No. 14808-60-7) has been classified for carcinogenicity (Category 1). Titanium dioxide (CAS No. 13463-67-7) (airborne, unbound particles of respirable size) has been classified for carcinogenicity (Category 2). Product classification is not warranted based on a review of available data and the nature of the product (<i>i.e.</i> , liquid). Silica, crystalline and titanium dioxide are also listed as carcinogens by NTP and ACGIH. The other components in the product at >0.1% are not carcinogenic based on animal studies or no data identified for the components in this product.
Reproductive Toxicity:	Olivine, cobalt silicate blue (CAS No. 68187-40) has been classified for reproductive toxicity (Category 1B; may cause damage to fertility and Category 2; suspected of damaging unborn child); however, product classification is not warranted based on a review of available data. The other components in the product at >0.1% are not reproductive toxicants based on animal studies or no data identified for the components in this product.
Specific target organ toxicity (single exposure):	The components in the product at >1% are not specific target organ toxicity (single exposure) toxicants based on animal studies or no data identified for the components in this product.

Specific target organ toxicity (repeated exposure):

Silica, crystalline (CAS No. 14808-60-7) is classified for specific target organ toxicity (repeated exposure, Category 1; causes damage to lungs through prolonged or repeated exposure via inhalation); however, classification is not warranted based on a review of available data and the nature of the product (i.e., liquid). The other components in this product at >1% are not repeated exposure specific target organ toxicity hazards based on available information, human and/or animal studies.

Aspiration hazard:

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

References:

ECHA (European Chemicals Agency). 2022. REACH Registered Substances Database. <https://echa.europa.eu/search-for-chemicals>
IARC (International Agency for Research on Cancer). 2022. Agents Classified by the IARC Monographs, Volumes 1–129. <https://monographs.iarc.who.int/list-of-classifications/>
NTP (National Toxicology Program). 2022. 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/roc14>

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 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.

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 not regulated as dangerous goods for transport.

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es):	Not applicable
14.4 Packing group	Not applicable
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Maritime transport in bulk according to IMO instruments	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 – Composition / Information on Ingredients**.

United States

Federal Regulations:

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA):

Chemical Name	CAS No.	CERCLA RQ	CAA112(r) TQ
Chromium Compounds	Various	Not assigned	Not applicable
Cobalt Compounds	Various	Not assigned	Not applicable
Cadmium Compounds	Various	Not assigned	Not applicable
Selenium Compounds	Various	Not assigned	Not applicable
Zinc Compounds	Various	Not assigned	Not applicable
Vanadium oxide (listed as vanadium pentoxide)	1314-62-1	1,000 lbs	Not applicable

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

Clean Water Act (CWA): Chromium compounds, cadmium compounds, selenium compounds, and zinc compounds are listed by the CWA as toxic pollutants. No other components in this product are listed as toxic pollutants.

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

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

SARA 302 Components: Vanadium oxide [listed as vanadium pentoxide (CAS No. 1314-62-1)] has a reporting quantity of 100 lbs/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 components in this product are subject to reporting requirements of S.302.

SARA 304 Emergency Release Notification: Vanadium oxide [listed as vanadium pentoxide (CAS No. 1314-62-1)] has a reporting quantity of 1,000 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 components in this product are subject to reporting requirements of S.304.

SARA 311/312 Hazards: None.

SARA 313 Components: Vanadium oxide [listed as vanadium pentoxide (CAS No. 1314-62-1)], formaldehyde (CAS No. 50-00-0), chromium compounds, cadmium compounds, selenium compounds, zinc compounds and aluminum oxide (1344-28-1) are subject to reporting requirements of S.313. No other components are subject to reporting requirements of S.313.

Toxic Substances Control Act (TSCA): 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 components are listed on the non-confidential TSCA inventory or are exempt.

State Regulations:

California Candidate Chemicals List: Silica, crystalline [listed as silica dust, crystalline, in the form of quartz or cristobalite (CAS No. 14808-60-7)], titanium dioxide (CAS No. 13463-67-7), cobalt (II) oxide (CAS No. 1307-96-6), selenium sulfide (CAS No. 7446-34-6), cadmium and cadmium compounds, and formaldehyde (CAS No. 50-00-0) are listed on California's Candidate Chemicals List. No other components are listed on California's Candidate Chemicals List.

California Proposition 65 List: Silica, crystalline (airborne particles of respirable size) (CAS No. 14808-60-7), cobalt (II) oxide (CAS No. 1307-96-6), cobalt (listed as cobalt metal powder), selenium sulfide (CAS No. 7446-34-6), cadmium and cadmium compounds, vanadium oxide [listed as vanadium pentoxide (orthorhombic crystalline form) (CAS No. 1314-62-1)] and formaldehyde (gas) (CAS No. 50-00-0) are listed on the Proposition 65 List. A screening assessment or the nature/physical form of the product (*i.e.*, liquid) indicate that these constituents are not expected to be a cause for concern or require warnings as per California Proposition 65. No other components in this product are listed on the Proposition 65 List.

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: Silica, crystalline (CAS No. 14808-60-7), cadmium and cadmium compounds, chromium (III) oxide; cobalt, vanadium oxide [listed as vanadium pentoxide (CAS No. 1314-62-1)], and formaldehyde (CAS No. 50-00-0) are listed on the Toxic or Hazardous Substance List. No other components in this product are listed on the Toxic or Hazardous Substance List.

Minnesota Chemicals of High Concern List and Priority List: Silica, crystalline (CAS No. 14808-60-7), titanium dioxide (CAS No. 13463-67-7), cobalt (II) oxide (CAS No. 1307-96-6), cobalt (listed as cobalt metal powder), cadmium, vanadium oxide [listed as vanadium pentoxide (orthorhombic crystalline form) (CAS No. 1314-62-1)], and formaldehyde (CAS No. 50-00-0) are listed on the Chemicals of High Concern and Priority list. No other components in this product are listed on the Chemicals of High Concern and Priority list.

New Jersey Right to Know Hazardous Substance List: Kaolinite (CAS No. 1332-58-7), silica, crystalline (CAS No. 14808-60-7), titanium dioxide (CAS No. 13463-67-7), iron oxide (CAS No. 1309-37-1), cobalt and cobalt compounds, selenium sulfide (CAS No. 7446-34-6), cadmium and cadmium compounds, and formaldehyde (CAS No. 50-00-0) are listed on the Right to Know Hazardous Substance List. No other components present at >0.1% in the product are listed on the Right to Know Hazardous Substance List.

Pennsylvania Hazardous Substance List: Kaolinite [listed as kaolin (CAS No. 1332-58-7)], silica, crystalline [listed as quartz (CAS No. 14808-60-7)], titanium dioxide (CAS No. 13463-67-7), iron oxide [listed as iron oxide (Fe₂O₃) (CAS No. 1309-37-1)], cobalt, selenium sulfide (CAS No. 7446-34-6), cadmium, and formaldehyde (CAS No. 50-00-0) are listed on the Hazardous Substance List. No other components 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: Silica, crystalline [listed as silica dust, crystalline, in the form of quartz or cristobalite (CAS No. 14808-60-7)], cadmium and cadmium compound, and formaldehyde (CAS No. 50-00-0) are listed as Group 1, carcinogenic to humans. Cobalt (II) oxide (CAS No. 1307-96-6), cobalt (listed as cobalt metal), vanadium oxide [listed as vanadium pentoxide (CAS No. 1314-62-1)], and titanium dioxide (CAS No. 13463-67-7) are listed as Group 2B, possibly carcinogenic to humans. Wollastonite (CAS No. 13983-17-0) and iron oxide [listed as ferric oxide (CAS No. 1309-37-1)] are classified as Group 3, not classifiable as to its carcinogenicity to humans. No other components in this product are classified with respect to carcinogenicity.

15.2 Chemical Safety Assessment

- None available for the components in this product.

Section 16 – Other Information

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
Carc.: Carcinogenicity	PPE: Personal Protective Equipment
CAS: Chemical Abstract Service Number	REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
CERCLA: Comprehensive Environmental Response and Liability Act	REL: Recommended exposure level
CWA: Clean Water Act	Repr.: Reproductive toxicity
DFG MAK: Deutsche Forschungsgemeinschaft Maximale Arbeitsplatz-Konzentration	SARA: Superfund Amendment and Reauthorization Act
EC: European Commission	SDS: Safety Data Sheet
ECHA: European Chemicals Agency	Sens.: Sensitization
GHS: Global Harmonized System	STOT RE: Specific target organ toxicity (repeated exposure)
HEPA: High Efficiency Particulate Air	TLV: Threshold limit value
IARC: International Agency for Research on Cancer	TWA: Time-weighted average
IBC: International Bulk Chemical	TSCA: Toxic Substances Control Act
MARPOL: Maritime Pollution	UN: United Nations
NIOSH: National Institute for Occupational Safety & Health	vPvB: very Persistent, very Bioaccumulative

References:

ECHA (European Chemicals Agency). 2022. REACH Registered Substances Database. <https://echa.europa.eu/search-for-chemicals>
 IARC (International Agency for Research on Cancer). 2022. Agents Classified by the IARC Monographs, Volumes 1–129. <https://monographs.iarc.who.int/list-of-classifications/>
 NTP (National Toxicology Program). 2022. 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/roc14>

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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