DRY STONEWARE GLAZES

SAFETY DATA SHEET (SDS)

Version: 04
Date of Issue: September 08, 2023

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

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

1.1 Product identifier

Product Name: DRY STONEWARE GLAZES

Product Colors: CLEAR (SD001), ZINC FREE CLEAR (SD004), WROUGHT IRON (SD111), TIGER'S EYE (SD112), SPECKLED PLUM (SD113), CINNABAR (SD119), NORTHERN WOODS (SD120), SMOKE (SD121), SAPPHIRE (SD123), PURPLE MINT (SD125), COPPER JADE (SD130), BIRCH (SD131), EGGPLANT (SD134), CELADON BLOOM (SD150), BLUE SPATTERWARE (SD152), SHIPWRECK (SD154), GALAXY (SD156), BLUE HYDRANGEA (SD170), ENCHANTED FOREST (SD171), FOOL'S GOLD (SD178), TURQUOISE (SD201), ROOTBEER (SD203), AMBER TOPAZ (SD204), MELON (SD206), CHAMBRAY (SD207), CHARCOAL (SD209), GLACIER BLUE (SD211), PEACOCK (SD212), GLOSS YELLOW (SD502), GLOSS ORANGE (SD503), GLOSS RED (SD504), GLOSS PURPLE (SD505), GLOSS BRIGHT BLUE (SD506), GLOSS BRIGHT GREEN (SD507), GLOSS BLACK (SD508), CORAL (SD205), PASSION FLOWER (SD190), PEPPERED PLUM (SD191), AMARYLLIS (SD192), PINK GLOSS (SD511), CORAL GLOSS (SD512), BROWN GLOSS (SD513), SATIN PATINA (SD164), ANTIQUE BRASS (SD182), OXBLOOD (SD183), SPECKLED TOAD (SD184), OLIVINE (SD127), OLIVE FLOAT (SD151), EMERALD (SD210), BLACK WALNUT (SD104), GREEN TEA (SD108), MIDNIGHT RAIN (SD115), MIRROR BLACK (SD132), AURORA GREEN (SD146), MOONSCAPE (SD147), SAND & SEA (SD167), BLUE OPAL (SD252), RAINFOREST (SD185), IVY (SD193), BLUE SURF (SD100), STONED DENIM (SD101), FROST BLUE (SD105), ALABASTER (SD106), DUNES (SD107), CAPRI BLUE (SD109), OYSTER (SD110), ROBIN'S EGG (SD116), HONEYCOMB (SD117), SEA SALT (SD118), MAYCOSHINO (SD122), COPPER FLOAT (SD129), WINTERGREEN (SD135), WEATHERED BLUE (SD136), STORM GRAY (SD137), LEMON MERINGUE (SD138), BLACK MATTE (SD140), WHITE MATTE (SD141), GRAY MATTE (SD142), ABALONE (SD143), LAVA ROCK (SD144), TEA DUST (SD145), LIME SHOWER (SD148), INDIGO RAIN (SD153), WINTER WOOD (SD155), LAVENDER MIST (SD165), NORSE BLUE (SD166), CORAL SANDS (SD168), FROSTED LEMON (SD169), RUSTED IRON (SD175), RASPBERRY MIST (SD177), WHITE OPAL (SD250), PINK OPAL (SD251), GREEN OPAL (SD253), GRAY OPAL (SD255), GLOSS WHITE (SD501), AZURITE (SD186), HIMALAYAN SALT (SD187), LANDSLIDE (SD188), CENOTE (SD189), NIMBUS (SD194), RIPTIDE (SD195), SAND DOLLAR (SD196), FOSSIL ROCK (SD197), ROSE QUARTZ (SD198), MATTE CLEAR (SD002), CRACKLE (SD003), MATTE MAYCOSHINO (SD124), COPPER ORE (SD133), CRACKLE WHITE (SD149), LILAC MATTE (SD158), BLUE MATTE (SD159), CHARTRUSE MATTE (SD160), YELLOW MATTE (SD161), PINK MATTE (SD162), SOFT READ MATTE (SD163), MACADAMIA (SD172), AMBER QUARTZ (SD173), LEATHER (SD174), SANDSTONE (SD176), LIGHT MAGMA (SD405), DARK MAGMA (SD406), MUDDY WATERS (SD179), DESERT DUSK (SD180), NIGHT MOTH (SD181), DARK GREEN GLOSS (SD509), BLUE GLOSS (SD510), COROVAN (SD128)

Product sizes: 5 lbs per color

Other Means of Identification
Unique Formula Identifier: See product label
Other: None known

Product Description: Powder formulations intended to be diluted in water and used for arts and crafts purposes.

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

Relevant identified use(s): Use product for its intended purpose as a glaze product intended for general (adults) arts and crafts purposes. This product is diluted in water and intended for small batch use.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Mayco Colors
4077 Weaver Court South
Hilliard, OH 43026

EU Contact:
Business Phone: 614-675-1171
Email: info@maycocolors.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: Regulation (EC) No 1272/2008 [CLP]

	Health [a]	Environment [b]	Physical
Classification according to Regulation (EC) No 1272/2008 [CLP]	H372: Specific Target Organ Toxicity – Repeated Exposure (Category 1) H350: Carcinogenicity (Category 1A) H371: Specific target organ toxicity (single exposure, Category 2, gastrointestinal tract) H302: Acute toxicity – oral (Category 4) H332: Acute toxicity – inhalation (Category 4)	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
SCL and/or M-factor	Not applicable	Not applicable	Not applicable
Classification Procedure	Weight of evidence	Weight of evidence	Weight of evidence

[a] This SDS applies to a product line, as such the health classifications listed do not pertain to each individual color. Certain health classifications pertain to some colors but not others.

[b] 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.

2.2. Label elements

Label Pictogram:

Signal Word: Danger

Hazard statements & Precautions:

Specific Target Organ Toxicity (Category 1) (H372)	**Causes damage to organs through prolonged or repeated exposure.** **P260**: Do not breathe dust. **P264**: Wash hands thoroughly after handling. **P270**: Do not eat, drink or smoke when using this product. **P319**: Get medical help if you feel unwell. **P501**: Dispose of contents/container in accordance with local/regional/national/international regulations
Carcinogenicity (Category 1A) (H350)	**May cause cancer by inhalation.** **P203**: Obtain, read, and follow all safety instructions before use. **P280**: Wear protective gloves/protective clothing/eye protection/face protection. **P318**: IF exposed or concerned: Get medical advice. **P405**: Store locked up. **P501**: Dispose of contents/container in accordance with local, regional, national, and/or international regulations.
Specific target organ toxicity (single exposure, Category 2, gastrointestinal tract) (H371)	**May cause irritation to gastrointestinal tract through oral exposure.** **P260**: Do not breathe dust. **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 toxicity – oral (Category 4) (H302)	**Harmful if swallowed.** **P264:** Wash hands thoroughly after handling. **P270:** Do not eat, drink or smoke when using this product. **P301+P317:** IF SWALLOWED: Get medical help. **P330:** Rinse mouth **P501**: Dispose of contents/container in accordance with local, regional, national, and/or international regulations.
Acute toxicity – inhalation (Category 4) (H332)	**Harmful if inhaled.** **P261:** Avoid breathing dust. **P271:** Use only outdoors or in a well-ventilated area. **P304 + P340:** IF INHALED: Remove a person to fresh air and keep comfortable for breathing. **P317:** Get medical help.
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

- This product is not expected to be endocrine disrupting.
- This product is not expected to meet the criteria for vPvB or PBT in accordance with Regulation (EC) No. 1907/2006, Annex XIII.
- Mechanical irritation of the eyes and respiratory system may occur following exposure dusts.

Section 3 – Composition / Information on Ingredients

3.1 Substances

The product is a mixture and not a substance.

3.2 Mixture

Chemical Name	CAS No.	EC No.	% Concentration [a]	GHS Hazards [b]
Quartz (crystalline silica)	14808-60-7	238-878-4	up to 39.6764%	H350: Carcinogenicity (Category 1) (Inhalation); H372: Specific target organ toxicity (repeated exposure, Category 1, lungs)
Titanium dioxide	13463-67-7	236-675-5	up to 0.9696%	H351: Carcinogenicity (Category 2) (Inhalation)
Cobalt (II, III) oxide	1308-06-1	215-157-2	up to 4.0667%	H334: Respiratory sensitization (Category 1B); H412: Hazardous to the aquatic environment – long term (chronic) hazard (Category 3)
Boron oxide [c]	1303-86-2	215-125-8	up to 2.2440%	H360FD: Reproductive toxicity (Category 1B; may damage fertility or the unborn child)
Manganese dioxide	1313-13-9	215-202-6	up to 41.9536%	H302: Acute toxicity - oral (Category 4); H332: Acute toxicity - inhalation (Category 4)
Zinc oxide	1314-13-2	215-222-5	up to 14.2343%	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)
Cupric oxide	1317-38-0	215-269-1	up to 6.1544%	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)
Trisodium hexafluoroaluminate	13775-53-6	237-410-6	up to 17.1479%	H332: Acute toxicity - inhalation (Category 4); H372: Specific target organ toxicity (repeated exposure, Category 1, lungs); H411: Hazardous to the aquatic environment – long term (chronic) hazard (Category 2)
Feldspar	68476-25-5	270-666-7	up to 54.1200%	H335: Specific target organ toxicity (single exposure, Category 3, respiratory irritation); H319: Eye Irritation (Category 2)
Lithium carbonate	554-13-2	209-062-5	up to 5.8730%	H302: Acute toxicity - oral (Category 4); H319: Eye irritation (Category 2)

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

[b] GHS classifications are based on classifications in the CLP as well as available toxicology data regarding the individual ingredients.

[c] The hazardous boron listed as part of this product is completely incorporated into the glassy structure of the frit, chemically reacted in the form of silicates or other essentially insoluble complexes. Exposure to the hazardous ingredient can occur if dust is inhaled and the ingredients dissolve out of the glass. Because of the chemical stability of frits and its resistance to attack by acids or alkali, this is anticipated to occur very slowly. To date, there is no significant evidence of adverse effects from industrial exposures. As with all dusty materials, inhalation may cause respiratory irritation, sneezing, coughing and runny nose.

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.

	Specific Concentration Limit	Multiplying-Factor	Acute Toxicity Estimate
DRY STONEWARE GLAZES	N/A	N/A	>2000 mg/kg (oral/dermal) >20 mg/L (inhalation)

Section 4 – First Aid Measures

4.1 Description of first aid measures

Eye contact: No specific first aid measures are required. 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: Seek medical attention if in doubt.

Inhalation: IF INHALED: Inhaling dust may cause discomfort in the chest, respiratory irritation, shortness of breath and coughing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

Ingestion: IF SWALLOWED: Get emergency medical help immediately. Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person.

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, water spray, 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:
- See also **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: Avoid dust formation. Ventilate area if spilled in confined space or other poorly ventilated areas. Observe PPE advice in **Section 8 – Exposure Controls/Personal Protection**.

Emergency Procedures: Evacuate personnel to safe areas.

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. Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust. 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: Airborne particles, such as dust, are foreseeable under conditions of normal use.

Chemical Name	CAS No.	ACGIH TLVs TWA	OSHA PELs TWA	NIOSH RELs TWA	DFG MAK TWA
Quartz (crystalline silica)	14808-60-7	0.025 mg/m^3 **R**	0.05 mg/m^3	0.05 mg/m^3	N/A
Titanium dioxide	13463-67-7	10 mg/m^3	15 mg/m^3 [a]	N/A	0.3 mg/m^3 [b] **R**
Boron oxide	1303-86-2	10 mg/m^3 [a]	15 mg/m^3 [a]	10 mg/m^3 [a]	N/A
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**
Cupric oxide	1317-38-0	1 mg/m^3 (dusts & mists)	15 mg/m^3 (dusts & mists)	1 mg/m^3 (except fume)	N/A

[a] Total
[b] Respirable
R Measured as respirable fraction of the aerosol
N/A 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. In case of dust formation use a respirator with an approved filter.

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: Use appropriate respiratory protection when handling to minimize exposure to dust particles. 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. An eyewash bottle or station should be available in the workplace. Wear a face shield if splash or spray is likely.
Hands:	Use good industrial hygiene practices to avoid skin contact. If contact with the material may occur, wear chemically protective gloves.
Body/Skin:	Wear chemically impervious 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:** **Form:** **Color:** **Odor:**	 Dry Powder Powder **See section 1.1** Not available	**Partition Coefficient n-octanol/water:** **Auto-ignition temperature:**	 Not available Not available
pH (as supplied):	Not available	**Decomposition temperature:**	Not available
Freezing point:	Not available	**Dynamic viscosity:**	Not available
Boiling point:	Not available	**Molecular weight:**	Not available
Flash point:	Not available	**Taste:**	Not available
Evaporation rate:	Not available	**Explosive properties:**	Not available
Flammability:	Not available	**Oxidizing properties:**	Not available
Upper/lower explosive limits:	Not available	**Surface tension:**	Not available
Vapor pressure:	Not available	**Volatile component:**	Not available
Water solubility:	Not available	**Gas group:**	Not available
Vapor density (Air = 1):	Not available	**pH (as solution):**	Not available
Specific gravity (Water = 1):	Not available	**VOC:**	Not available
Relative density:	Not available	**Particle size range:**	Not available

9.2.1 Information with Regard to Physical Hazard Classes

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

Corrosive to metals	Not available
Desensitised explosives	Not available

9.2.2 Other Safety Characteristics

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

Section 10 – Stability and Reactivity

10.1 Reactivity

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

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

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

10.5 Incompatible materials

- Strong acids
- Strong bases
- Strong reducing agents
- Strong oxidizing 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/eye contact, inhalation of dust.
Potential signs and symptoms:

Acute oral toxicity: Manganese dioxide (CAS No. 1313-13-9) and lithium carbonate (CAS No. 554-13-2) have been classified for acute oral toxicity (Category 4). The oral ATE for the whole product is <2000 mg/kg. Product classification is

	warranted for acute oral toxicity (Category 4) based on the calculated ATE.
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 >5000 mg/kg.
Acute inhalation toxicity:	Manganese dioxide (CAS No. 1313-13-9) and trisodium hexafluoroaluminate (CAS No. 13775-53-6) have been classified for acute inhalation toxicity (Category 4). The inhalation ATE for the whole product is <5 mg/L. Product classification is warranted for acute inhalation toxicity (Category 4) based on the calculated ATE.
Skin corrosion/irritation:	The components in this product >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 lithium carbonate (CAS No. 554-13-2) 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 components in this product >1% are not damaging to the eyes or eye irritants based on human and/or animal studies. Mechanical irritation may occur if powder gets into the eyes.
Respiratory or skin sensitization:	Cobalt (II, III) oxide (CAS No. 1308-06-1) has been classified for respiratory sensitization (Category 1B). Product classification is not warranted for respiratory sensitization based on a review of the available data and the form of cobalt present in the product (*i.e.*, cobalt is bound to a matrix/complex which reduces the availability of cobalt in the body). The other components in this product >0.1% are not sensitizing to the skin or respiratory system based on human and/or animal studies.
Mutagenicity:	The components in this product >0.1% are not mutagenic based on animal studies or no data identified for the components in this product.
Carcinogenicity:	Quartz (crystalline silica) (airborne, unbound particles of respirable size) (CAS No. 14808-60-7) has been classified for carcinogenicity (Category 1). Product classification is warranted for carcinogenicity based on the concentration of quartz in the product and the nature of the product (*i.e.*, powder). Titanium dioxide (airborne, unbound particles of respirable size) (CAS No. 13463-67-7) has been classified for carcinogenicity (Category 2). Product classification is not warranted for carcinogenicity based on the concentration of titanium dioxide in the product. Quartz (crystalline silica) [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. Respirable titanium dioxide (CAS No. 13463-67-7) is listed in Group 2B by IARC. Titanium dioxide is also listed as a carcinogen by ACGIH. The other components in the product >0.1% are not carcinogenic based on animal studies or no data identified for the components in this product.
Reproductive Toxicity:	Boron oxide (CAS No. 1303-86-2) has been classified for reproductive toxicity (Category 1B; may damage fertility or the unborn child); however, product classification is not warranted given that the hazardous boron is completely incorporated into the glassy structure of the frit (chemically reacted in the form of silicates or other essentially insoluble complexes). Lithium carbonate (CAS No. 554-13-2) has been associated with reproductive and developmental effects; however, product classification is not warranted for this effect given the concentration present in the product. The other components in this product >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):	Cupric oxide (CAS No. 1317-38-0) 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 warranted for this effect given the concentration of cupric oxide in the product and a review of available data. 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 this effect given the concentration of zinc in the product and the intended use of the product (*i.e.,* powder diluted in water). 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. The other components in this product >1% are not single exposure specific target organ toxicity (single exposure) hazards based on animal studies or no data identified for the components in this product
Specific target organ toxicity (repeated exposure):	Quartz (crystalline silica) (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 warranted for specific target organ toxicity (repeated exposure, Category 1; causes damage to organs through prolonged or repeated exposure) given the concentration of quartz in the product and the nature of the product (*i.e*., powder). Extended inhalation at levels above the workplace limit value can cause irreversible damage to the lungs (silicosis). Trisodium hexafluoroaluminate (CAS No. 13775-53-6) has been classified for specific target organ toxicity (repeated exposure, Category 1; causes damage to lungs through prolonged or repeated exposure *via* orally and inhalation). Trisodium hexafluoroaluminate does not contribute to the specific target organ toxicity classification given the concentration present in the product and a review of available data. The other components in this product >1% are not repeated exposure specific target organ toxicity hazards based on available information, human and/or animal studies.
Aspiration hazard:	The components of this product >1% are not aspiration hazards based on animal studies or no data identified for the components in this product.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

- This product is not expected to be endocrine disrupting,

11.2.2 Information on other hazards

- No other hazards to note.

References:

ECHA (European Chemicals Agency). 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). 2023. Report on Carcinogens, Fifteenth Edition.; Research Triangle Park, NC: Official Journal of the European Union. 2008. Regulation (EC) No 1272/2008. http://data.europa.eu/eli/reg/2008/1272/2022-03-01
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

- Product is classified for acute and chronic aquatic toxicity (Category 1).

Chemical Name	CAS No.	Species	Result
Zinc oxide	1314-13-2	*Danio rerio*	LC_{50} (96h): 1.793 mg/L (bulk ZnO) nominal EC_{50} (84h): 2.066 mg/L (bulk ZnO) nominal
		Danio rerio	NOEC (32d): ≥540 µg/L nominal
		Daphnia magna	EC_{50} (48h): >1.4 - <2.5 mg/L nominal

		Daphnia magna	EC_{10} (21d): 127 µg/L nominal EC_{10} (21d): 195 µg/L nominal
Cupric oxide	1317-38-0	*Fathead minnow*	LC_{50} (96h): 38.4 µg/L – 256.2 µg/L
		Daphnia magna	NOEC (32d): 188 µg Cu/L
		Raphidocelis subcapitata	NOEC (48h): 1 µg/L - 35 µg/L
		Lemna minor	NOEC (7d): 30 µg/L
Trisodium hexafluoroaluminate	13775-53-6	*Brachydanio rerio*	LC_{50} (96h): 99 mg/L
		Daphnia magna	EC_{50} (48h): 156 mg/L
		Pseudokirchneriella subcapitata	ErC_{50} (72h): 8.8 mg/L
Cobalt (II, III) oxide	1308-06-1	*Oncorhynchus mykiss*	LC_{50} = 0.8 mg Co/L
		Danio rerio	LC_{50} = 85 mg Co/L
		Cladoceran	LC_{50}= 0.61 mg Co/L
		Lemna minor	EC_{50}= 52 µg/L

12.2 Persistence and degradability

- No data available for the product.

12.3 Bioaccumulative potential

- Cobalt (II, III) oxide (CAS No. 1308-06-1) has a bioconcentration factor of 180 – 4000.

12.4 Mobility in Soil

- No data available for the product.

12.5 Results of PBT and vPvB assessment

- No data available for the product.

12.6 Endocrine disrupting properties

- No data available for the product.

12.7 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 may exhibit hazards.

Section 14 – Transport Information

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

14.1 UN number	3077
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

	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**.

European Union
Seveso Directive (2012/18/EU): No components in this product are listed.
Regulation (EC) No. 1005/2009, Annex I and II: No components in this product are listed.
Regulation (EC) No. 649/2012, Annex I, Parts I-III: No components in this product are listed.
Regulation (EC) No. 2019/1021, Annex I: No components in this product are listed.

Germany:
Wassergefährdungsklasse (water hazard class): WGK 3 – Schwach wassergefährdend (severe hazard to waters).

International:
IARC: Quartz (crystalline silica) (CAS No. 14808-60-7) is listed in Group 1, carcinogenic to humans. Titanium dioxide (CAS No. 13463-67-7) is listed in Group 2B, possibly carcinogenic to humans. Cobalt oxide (CAS No. 1308-06-1) (listed as cobalt (II, III) oxide), is classified as Group 3, not classifiable as to its carcinogenicity to humans. No other components of 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 Industrial Hygienists	NTP: National Toxicology Program
ATE: Acute Toxicity Estimate	OSHA: Occupational Safety and Health Administration
CAA: Clean Air Act	PBT: Persistent, Bioaccumulative and Toxic
CAS: Chemical Abstract Service Number	PEL: Permissible Exposure Level
CERCLA: Comprehensive Environmental Response and Liability Act	PPE: Personal Protective Equipment
CWA: Clean Water Act	REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
DFG MAK: Deutsche Forschungsgemeinschaf Maximale Arbeitsplatzkonzentration	REL: Recommended exposure level
EC: European Commission	SARA: Superfund Amendment and Reauthorization Act
ECHA: European Chemicals Agency	SDS: Safety Data Sheet
GHS: Global Harmonized System	TLV: Threshold limit value
IARC: International Agency for Research on Cancer	TSCA: Toxic Substances Control Act
IMO: International Maritime Organization	TWA: Time-weighted average
MARPOL: Maritime Pollution	UN: United Nations
N/A: Not applicable	VOC: Volatile Organic Compound

NIOSH: National Institute for Occupational Safety & Health	vPvB: very Persistent, very Bioaccumulative

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). 2023. 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.

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