DRY STONEWARE GLAZES

SAFETY DATA SHEET (SDS)

Version: 02
Date of Issue: February 17, 2025

According to: WHMIS 2015
(Hazardous Products Regulations)

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 HY-DRANGEA (SD170), ENCHANTED FOREST (SD171), FOOL'S GOLD (SD178), TUR-QUOISE (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), MAY-COSHINO (SD122), COPPER FLOAT (SD129), WINTERGREEN (SD135), WEATH-ERED 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 MAY-COSHINO (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), PURPLE ASTER (SD199), MICRO PEARL (SD214), MICRO CHAMPAGNE (SD215), MICRO JADE (SD216), MICRO CERULEAN (SD217), MICRO ASH (SD218), OPAL LUSTRE (SD219)
Product sizes:	5 lbs per color
Other Means of Identification:	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: Coloramics, LLC
4077 Weaver Court South
Hilliard, OH 43026
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: WHMIS 2015 (Hazardous Products Regulations) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), 10th Revision:

Physical	Health [a]	Environment [b, c]
Not classified	H372: Specific Target Organ Toxicity (repeated exposure, Category 1, lungs) H350: Carcinogenicity (Category 1A) (Inhalation) H371: Specific Target Organ Toxicity (single exposure, Category 2, gastrointestinal tract irritation) H302: Acute oral toxicity (Category 4) H332: Acute inhalation toxicity (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)

[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.

[c] Environmental hazards are outside the scope of WHMIS; therefore, product classification for acute and chronic aquatic toxicity (Category 1) is not mandatory.

2.2. Label elements

Label Pictogram:

Signal Word: Danger

Hazard statements & Precautions:

Specific Target Organ Toxicity (repeated exposure, Category 1, lungs) (H372)	**Causes damage to lungs through prolonged or repeated inhalation.** **P260**: Do not breathe dust. **P264:** Wash hands thoroughly after handling. **P270:** Do not eat, drink or smoke when using this product. **P314**: Get medical advice/attention if you feel unwell. **P501**: Dispose of contents/container in accordance with local/regional/national/international regulations.
Carcinogenicity (Category 1A) (Inhalation) (H350)	**May cause cancer by inhalation.** **P201**: Obtain special instructions before use. **P202**: Do not handle until all safety precautions have been read and understood. **P280**: Wear protective gloves/protective clothing/eye protection/face protection. **P308 + P313**: IF exposed or concerned: Get medical advice/attention. **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 irritation) (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 + P311:** IF exposed or concerned: Call a POISON CENTER/doctor. **P405**: Store locked up. **P501**: Dispose of contents/container in accordance with local, regional, national, and/or international regulations.
Acute oral toxicity (Category 4) (H302)	**Harmful if swallowed.** **P264:** Wash hands thoroughly after handling. **P270:** Do not eat, drink or smoke when using this product. **P301 + P312:** IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. **P330:** Rinse mouth
Acute inhalation toxicity (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. **P312:** Call a POISON CENTRE/doctor you feel unwell.
Acute aquatic toxicity (Category 1) (H400) [a] **Chronic aquatic toxicity (Category 1) (H410)** [a]	**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.

[a] Environmental hazards are outside the scope of WHMIS; therefore, product classification for acute and chronic aquatic toxicity (Category 1) is not mandatory.

Supplemental Hazard Information: None

2.3. Other hazards

- Substances when carried in single or combination packaging containing a net quantity per single or inner packaging of 5 kg or less for solids are not subject to any other provisions of ADR provided the packaging meets the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Should the single or inner packaging condition or provisions not be met, transportation restrictions will need to be revisited.
- 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
Quartz (crystalline silica)	14808-60-7	238-878-4	≤ 39.6764%	H350: Carcinogenicity (Category 1A) (inhalation); H372: Specific target organ toxicity (repeated exposure, Category 1, lungs)
Titanium dioxide	13463-67-7	236-675-5	≤ 0.9696%	H351: Carcinogenicity (Category 2) (Inhalation)
Cobalt (II, III) oxide	1308-06-1	215-157-2	≤ 4.0667%	H334: Respiratory sensitization (Category 1B); H412: Chronic aquatic toxicity (Category 3)
Boron oxide [b]	1303-86-2	215-125-8	≤ 2.2440%	H360FD: Reproductive toxicity (Category 1B) (May damage fertility and the unborn child)
Manganese dioxide	1313-13-9	215-202-6	≤ 41.9536%	H302: Acute oral toxicity (Category 4); H332: Acute inhalation toxicity (Category 4)
Zinc oxide	1314-13-2	215-222-5	≤ 24.6800%	H371: Specific target organ toxicity (single exposure, Category 2, gastrointestinal tract irritation); H400: Acute aquatic toxicity (Category 1); H410: Chronic aquatic toxicity (Category 1)
Cupric oxide	1317-38-0	215-269-1	≤ 6.1544%	H371: Specific target organ toxicity (single exposure, Category 2, gastrointestinal tract irritation); H400: Acute aquatic toxicity (Category 1); H410: Chronic aquatic toxicity (Category 1)
Trisodium hexafluoroaluminate	13775-53-6	237-410-6	≤ 17.1479%	H332: Acute inhalation toxicity (Category 4); H372: Specific target organ toxicity (repeated exposure, Category 1, lungs) H411: Chronic aquatic toxicity (Category 2)
Feldspar	68476-25-5	270-666-7	≤ 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	≤ 5.8730%	H302: Acute oral toxicity (Category 4); H319: Eye irritation (Category 2)

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

[b] 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.

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: Get medical advice/attention.

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

Inhalation: 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

- Do not breathe dust
- 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

- Store locked up.
- 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
Silica, crystalline, mixed respirable (quartz, cristobalite, tridymite)	14808-60-7	0.025 mg/m^3 [a]	0.05 mg/m^3	0.05 mg/m^3	N/A
Titanium dioxide	13463-67-7	10 mg/m^3 [a]	15 mg/m^3 [b]	N/A	0.3 mg/m^3 **R** [c]
Boron oxide	1303-86-2	N/A	15 mg/m^3 [b]	10 mg/m³	N/A
Zinc oxide, dust & fume	1314-13-2	2 mg/m³ [a]	5mg/m³	5 mg/m³	0.1 mg/m3 **R**
Copper, dusts & mists (as Cu)	1317-38-0	1 mg/m³ [d]	1 mg/m³ [d]	1 mg/m³ [e]	N/A

N/A Not applicable
R Measured as respirable fractions of the aerosol
[a] Respirable particulate matter
[b] Total dust
[c] Multiplied with the material density
[d] Dusts & mists
[e] Except fume

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

8.2 Exposure Controls:

Appropriate engineering controls

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

- No 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 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. ATE 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 ingredients 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 ingredients 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 ingredients in this product >0.1% are not sensitizing to the skin or respiratory system based on human and/or animal studies.
Mutagenicity:	The ingredients in this product >0.1% are not mutagenic based on animal studies or no data identified for the ingredients 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 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:	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 ingredients in this product >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):	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 ingredients 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 ingredients 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 this effect 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 ingredients 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 ingredients of this product >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). 2025. Agents Classified by the IARC Monographs, Volumes 1–129. https://monographs.iarc.who.int/list-of-classifications/

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

Section 12 – Ecological Information

12.1 Toxicity

- Environmental hazards are outside the scope of WHMIS. Based on the criteria outlined in the 10th revision of the GHS, product classification for acute and chronic aquatic toxicity (Category 1).

Chemical Name	CAS No.	Species	Result
Zinc oxide	1314-13-2	*Danio rerio*	LC_{50} (96h): 1.55 mg/L (bulk ZnO) nominal EC_{50} (84h): 2.066 mg/L (bulk ZnO) nominal
		Daphnia magna	EC_{50} (48h): > 5 - < 16.2 mg/L (bulk ZnO) nominal
		Daphnia magna	EC_{50} (48h): >1.4 - <2.5 mg/L nominal
		Freshwater Alga and Cyanobacteria	EC_{10} (72h): 0.42 mg/L nominal
Cupric oxide [a, b]	1317-38-0	-	L(E)C_{50}: 34.4 µg Cu/L
			NOEC: 14.9 µg Cu/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
Zinc oxide	1314-13-2	*Danio rerio*	LC_{50} (96h): 1.55 mg/L (bulk ZnO) nominal EC_{50} (84h): 2.066 mg/L (bulk ZnO) nominal
		Daphnia magna	EC_{50} (48h): > 5 - < 16.2 mg/L (bulk ZnO) nominal
		Daphnia magna	EC_{50} (48h): >1.4 - <2.5 mg/L nominal
		Freshwater Alga and Cyanobacteria	EC_{10} (72h): 0.42 mg/L nominal

[a] According to Regulation (EC) No. 1272/2008 (CLP), M=100 for acute aquatic effects and M=10 for chronic aquatic effects.

[b] The lowest species-specific acute L(E)C_{50} and chronic NOEC values across pHs were selected as final environmental classification reference values.

12.2 Persistence and degradability

- No data available for the ingredients in the product.

12.3 Bioaccumulative potential

- Cobalt does not biomagnify, but rather exhibits biodilution, particularly in upper levels of both aquatic and terrestrial food chains. Cobalt (II, III) oxide (CAS No. 1308-06-1) has a bioconcentration factor of 180 – 4000.
- No data available for the other ingredients in the product.

12.4 Mobility in Soil

- Cupric oxide (CAS No. 1317-38-0) / cuprous oxide (CAS No. 1317-39-1) is very slightly [K_d= 2120 L/kg (log Kp (pm/w) = 3.33) (50th percentile)] mobile in soils.
- No data available for the ingredients in the product.

12.5 Results of PBT and vPvB assessment

- No data available for the ingredients in the product.

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 may exhibit hazards.

Section 14 – Transport Information

Note: This product is not regulated as dangerous goods for transport. Substances when carried in single or combination packaging containing a net quantity per single or inner packaging of 5 kg or less for solids are not subject to any other provisions of ADR provided the packaging meets the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Should the single or inner packaging condition or provisions not be met, transportation restrictions will need to be revisited

Review classification requirements before shipping materials at elevated temperatures.

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

Special precautions for use: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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**.

Canada
Canadian Environmental Protection Act DSL/NDSL: All ingredients are listed on the DSL, NDSL, or are exempt.

International:
IARC: Quartz (crystalline silica) (CAS No. 14808-60-7) arsenic (listed as arsenic and inorganic arsenic compounds), beryllium (listed as beryllium and beryllium compounds), cadmium (listed as cadmium and cadmium compounds), chromium [listed as chromium (VI) compounds], and nickel compounds are listed in Group 1, carcinogenic to humans. Titanium dioxide (CAS No. 13463-67-7) and lead are listed in Group 2B, possibly carcinogenic to humans. Cobalt oxide (CAS No. 1308-06-1) (listed as cobalt (II, III) oxide) and mercury (listed as mercury and inorganic mercury compounds) are classified as Group 3, not classifiable as to its carcinogenicity to humans. No other ingredients of this product are classified with respect to carcinogenicity.

15.2 Chemical Safety Assessment

- None available for the ingredients in this product.

Section 16 – Other Information

List of acronyms and abbreviations:

ACGIH: American Conference of Governmental Industrial Hygienists	NOEC: No Observed Effect Concentration
ATE: Acute Toxicity Estimate	NIOSH: National Institute for Occupational Safety & Health
CAS: Chemical Abstract Service Number	NTP: National Toxicology Program
DFG MAK: Deutsche Forschungsgemeinschaf Maximale Arbeitsplatzkonzentration	OSHA: Occupational Safety and Health Administration
DSL: Domestic Substances List	PBT: Persistent, Bioaccumulative and Toxic
EC: European Commission	PEL: Permissible Exposure Level
EC_{10}: 10% effect concentration	PPE: Personal Protective Equipment
EC_{50}: Median effective concentration	REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
ECHA: European Chemicals Agency	REL: Recommended exposure level
ErC_{50} : 50% Reduction of growth rate	SDS: Safety Data Sheet
GHS: Global Harmonized System	TLV: Threshold limit value
IARC: International Agency for Research on Cancer	TWA: Time-weighted average
IMO: International Maritime Organization	UN: United Nations
LC_{50}: Lethal Concentration 50%	VOC: Volatile Organic Compound
N/A: Not applicable	vPvB: very Persistent, very Bioaccumulative
NDSL: Non-Domestic Substances List	WHMIS: Workplace Hazardous Materials Information System

References:

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

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

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

Disclaimer:

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

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