BRAMBLE BERRY
HANDCRAFT PROVISIONS

Safety Data Sheet
Zinc Oxide

August 30, 2019

Section 1: Chemical Product and Company Identification

Product name: Zinc Oxide

Contact Info:
Bramble Berry Inc.
2138 Humboldt Street
Bellingham, WA 98225
info@brambleberry.com
www.brambleberry.com
1-877-627-7883

Emergency Phone Number:

Within USA & Canada: 1.800.424.9300 CCN693143
Outside USA & Canada: +1.703.527.3887 (collect calls accepted)

Section 2: Hazards Identification

OSHA/HCS status: While this material is not considered hazardous by the OSHA Hazard Communication Standard {29 CFR 1910.1200), this SOS contains valuable information critical to the safe handling and proper use of the product. This SOS should be retained and available for employees and other users of this product.

Classification of the substance or mixture: Not Classified

GHS Label Elements
Signal word: No signal word
Hazard statements: No known significant effects or critical hazards

Precautionary statements
Prevention: N/A
Response: N/A
Storage: N/A
Disposal: N/A

Hazards not otherwise classified: None known

Section 3: Composition/Information on Ingredients

Substance/mixture: Substance
Chemical name: Zinc Oxide
Other means of identification: Not available

CAS number/other identifiers

CAS number: 1314-13-2

Ingredient Name
Zinc Oxide

%
95-100

United States: The exact percentage (concentration) In the composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.
Canada: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with the amended HPR as of April 2018.
There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4: First Aid Measures

4.1 Description of first aid measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Eye Exposure: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Skin Exposure: Wash contaminated skin with soap and water. Get medical attention if symptoms occur.

Ingestion: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects: No known significant effects or critical hazards

Over-exposure signs/symptoms: No known significant effects or critical hazards

4.3 Indication of any immediate medical attention and special treatment needed Treatment:

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5: Fire-Fighting Measures

5.1 Extinguishing media

Suitable: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable: None known

5.2 Special hazards arising from the chemical

Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products: Decomposition products may include the following materials:

metal oxide/oxides

5.3 Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Put on appropriate personal protective equipment (see Section 8). Avoid release to the environment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8: Exposure Controls/Personal Protection

8.1 Control parameters

Occupational Exposure Limits:

NIOSH REL (United States, 10/2016).

CEIL: 15 mg/m3 Form: Dust

TWA: 5 mg/m3 10 hours. Form: Dust and fumes

STEL: 10 mg/m3 15 minutes. Form: Fertilizer and/or industrial use

OSHA PEL (United States, 5/2018).

TWA: 5 mg/m3 8 hours. Form: Fertilizer and/or industrial use.

TWA: 5 mgfm3 8 hours. Form: Respirable fraction

TWA: 15 mg/m3 8 hours. Form: Total dust

ACGIH TLV (United States, 3/2018).

TWA: 2 mgtm3 8 hours. Form: Respirable fraction

STEL: 10 mg/m3 15 minutes. Form: Respirable fraction

CA Quebec Provincial (Canada, 1/2014).

TWAEV: 5 mgJm3 8 hours. Form: Fertilizer and/or industrial use.

STEV: 10 mgtm3 15 minutes. Form: Fertilizer and/or industrial use.

CA Alberta Provincial (Canada, 6/2018).

8 hrs OEL: 2 mgfm3 8 hours. Form: Respirable

15 min OEL: 10 mg/m3 15 minutes. Form: Respirable

CA British Columbia Provincial (Canada, 7(2018).

TWA: 2 mgtm3 8 hours. Form: Respirable
STEL: 10 mgfm3 15 minutes. Form: Respirable CA

Saskatchewan Provincial (Canada, 712013).
STEL: 10 mg/m3 15 minutes. Form: Respirable dust and fume.
TWA: 2 mg/m3 8 hours. Form: Respirable dust and fume.

CA Ontario Provincial (Canada, 1/2018).
TWA: 2 mg/m3 8 hours. Form: Respirable fraction
STEL: 10 mg/m3 15 minutes. Form: Respirable fraction

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

8.2 Individual protection measures
Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties
Appearance: Solid
Odor: Odorless
Odor threshold: not applicable
Color: White
pH: Neutral
Melting point: 1975 C
Boling point: not available
Flash point: not applicable
Evaporation rate: not applicable
Flammability: not applicable
Lower and upper explosive limits: not applicable
Vapor pressure: not applicable
Vapor density: not applicable
Relative density: 5.61
Solubility: not applicable
Partition coefficient: n-octanol/water: not applicable
Auto-ignition temperature: not applicable
Decomposition temperature: not applicable
Viscosity: not applicable
Flow time (ISO 2431): not applicable

Section 10: Stability and Reactivity

10.1 Reactivity No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability Stable
10.3 Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid None known
10.5 Incompatible materials
Chlorinated rubber: Violent reaction or explosion with zinc oxide at 215 c.
Flax oil: Exothermic reaction with possibility of ignition.
Magnesium: If heated: explosive reaction.
Strong bases and acids: Possibility of violent reaction.

10.6 Hazardous decomposition products Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11: Toxicological Information

11.1 Toxicological Effects
Acute toxicity: There is no data available
Irritation/corrosion: There is no data available
Sensitization: There is no data available
Mutagenicity: There is no data available
Carcinogenicity: There is no data available
Reproductive Toxicity: There is no data available
Teratogenicity: There is no data available
Specific target organ toxicity: There is no data available
Aspiration Hazard: There is no data available

Information on the likely routes of exposure: Dermal contact, eye contact, inhalation, ingestion

Potential acute health effects:
No known significant effects or critical hazards

Symptoms related to the physical, chemical, and toxicological characteristics
No known significant effects or critical hazards

Delayed and immediate effects and also chronic effects from short and long term exposure
Short term exposure: No known significant effects or critical hazards
Long term exposure: No known significant effects or critical hazards
Potential chronic health effects: No known significant effects or critical hazards

Numerical measures of toxicity
No data available

Section 12: Ecological Information

12.1 Toxicity

Acute EC50 0.042 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours of exposure
Acute LC50 98 µg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours of exposure
Acute LC50 320 ppm Fresh water	Fish - Lepomis macrochlrus	96 hours of exposure
Chronic NOEC 0.017 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours of exposure

12.2 Persistence and degradability: No data available.
12.3 Bioaccumulative potential: No data available.
12.4 Mobility in soil: No data available.
12.5 Other adverse effects: No data available.

Section 13: Disposal Conditions

13.1 Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14: Transport Information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	UN3077	UN3077
UN proper shipping name	-	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide). Marine pollutant (Zinc oxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide)
Transport hazard class(es)	-	-	9 	9 
Packing group	-	-	III	III
Environmental hazards	No.	No.	Yes.	No.

Additional information:
IMDG: This product is not regulated as a dangerous good when transported in sizes of :;;5 Lor :;;5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1 .8.
IATA: This product is not regulated as a dangerous good when transported in sizes of :;;5 L or ?5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Special precautions for user: 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.

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Section 15: Regulatory Information

U.S. Federal Regulations:
United States inventory (TSCA Sb): All components are listed or exempted.
Clean Water Act (CWA) 307: Zinc Oxide

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs): Listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals): Not listed
DEA List II Chemicals (Essential Chemicals): Not listed

SARA 302/304

Composition/information on ingredients

Name	EHS	SARA 302 TPQ (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
Cadmium Oxide	Yes.	100 / 10000	-	100	-

SARA 304 RQ : 100000000000 lbs / 45400000000 kg

SARA 311/312

Classification : Not applicable.

SARA 313

	Product name	CAS number
Form R - Reporting requirements	Zinc oxide	1314-13-2
Supplier notification	Zinc oxide	1314-13-2

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations
Massachusetts: The following components are listed: Zinc oxide
New York: None of the components are listed
New Jersey: The following components are listed: Zinc oxide
Pennsylvania: The following components are listed: Zinc oxide

California Prop 65
WARNING: This product can expose you to chemicals including Cadmium Oxide, which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Lead Monoxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Canadian Lists
Canada inventory (DSL NDSL): All of the components are listed or exempted
Canadian NPRI: The following components are listed: Zinc Oxide
CEPA Toxic Substances: None of the components are listed

Section 16: Other Information

Key to abbreviations
ATE= Acute Toxicfty Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IA TA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

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