

SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: UltraFine Wollastonite (200mesh)
SYNONYMS: Ground Wollastonite
PRODUCT DESCRIPTION: Various uses
CAS NUMBER: Mixture
SUPPLIER NAME: Canadian Wollastonite
ADDRESS: 6675 Highway 15, Seeley's Bay, Ontario, Canada K0H 2N0
BUSINESS PHONE: 613-387-2734
BUSINESS FAX: 613-387-3934
EMERGENCY CONTACT: Local first responders
DATE OF PREPARATION: June 27, 2020
DATE OF LAST REVISION: August 9, 2017

SECTION 2 - HAZARDS IDENTIFICATION

Classification of the mixture

This product does meet the definition of a hazardous substance or preparation as defined by 29 CFR 1910. 1200 and WHMIS 2015.

Component(s) Contributing to Classification(s)

SiO₂, CaO, K₂O, Na₂O, TiO₂

GHS Label elements, including precautionary statements

Pictogram(s):



Signal Word:

Danger

GHS Hazard Classification(s):

Eye Irritation Category 2A

Carcinogenicity Category 1

STOT RE Category 1 (Respiratory Tract)

Hazard Statement(s):

H319 Causes serious eye irritation

H350 May cause cancer

H372 Causes damage to organs through prolonged or repeated exposure.

Prevention Statement(s):

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/eye protection/face protection.

Response Statement(s):

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P308+P313 If exposed or concerned: Get medical advice/attention.

Storage Statement(s):

P405 Store locked up.

Disposal Statement(s):

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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Other Hazards

POTENTIAL HEALTH EFFECTS:

INHALATION: Inhalation may cause respiratory irritation. Prolonged exposure can cause damage to the respiratory tract.

EYE: Direct contact may cause irritation with pain and redness.

SKIN: May cause irritation.

INGESTION: May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and Diarrhea.

ROUTES OF ENTRY: Inhalation, Skin Contact and/or Eye Contact.

SECTION 3 - COMPOSITION and INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS:	CAS #	WT %
SiO ₂	7631-89-9	57.6
CaO	1305-78-8	23.7
MgO	1309-48-4	6.16
Al ₂ O ₃	1344-28-1	4.89
K ₂ O	12136-45-7	2.07
Fe ₂ O ₃	1309-37-1	2.01
Na ₂ O	1313-59-3	1.51
S	7704-34-9	1.12
TiO ₂	13463-67-7	0.25

Note Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).

SECTION 4 - FIRST-AID MEASURES

Description of first aid measures

Contaminated individuals of chemical exposure must be taken for medical attention if any adverse effect occurs. Rescuers should be taken for medical attention, if necessary. Take copy of label and SDS to health professional with contaminated individual.

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation persists.

SKIN CONTACT: Wash skin thoroughly after handling. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before re-use.

INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

INGESTION: If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

Most important symptoms and effects, both acute and delayed

This product may cause eye irritation. Prolonged exposure can cause damage to the respiratory tract and is a carcinogenicity hazard.

Medical conditions aggravated by exposure:

This material or its emissions may aggravate pre-existing disorders involving any target organs mentioned in this Safety Data Sheet as being at risk.

Indication of immediate medical attention and special treatment needed

Treat symptoms and reduce over-exposure.

SECTION 5 - FIRE-FIGHTING MEASURES

Extinguishing media

Water Fog, alcohol-resistant foam, dry chemical or CO₂.

Specific hazards arising from the chemical

None applicable.

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Explosion Sensitivity to Mechanical Impact: Not Sensitive.

Explosion Sensitivity to Static Discharge: Not expected

Special firefighting Procedure

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spill Management:

Land Spill: Measures should be taken to minimize dust generation. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container.

Small Spill: Measures should be taken to minimize dust generation. Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container.

Environmental precautions

No specific data applicable to this product.

Methods and material for containment and cleaning up

Pick up released product with appropriate implements & return to original container if reusable, or dispose. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

SECTION 7 - HANDLING and STORAGE

Handling:

Read label for instructions in use of product. Avoid the inhalation of dust. Wear a dust-filtering face mask when handling. Avoid contact with eyes.

Storage:

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. Do not store in unlabeled containers. Use appropriate containment.

Specific end uses

Various uses.

SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

Control parameters

EXPOSURE LIMITS/GUIDELINES:

Chemical Name	Limit	Source
Wollastonite	TWA 15 mg/mg ³ (Respirable Dust)	OSHA
	TWA 10 mg/mg ³ (Respirable Dust)	ACGIH
SiO ₂	TWA 10 mg/m ³ / % SiO ₂ +2	OSHA
	TWA 0.025 mg/m ³ (Respirable Fraction)	ACGIH

Exposure Controls

Currently, International exposure limits are established for the components of this product. Please check with competent authority in each country for the most recent limits in place.

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below. Use local exhaust ventilation to control airborne dust. Ensure eyewash/safety shower stations are available near areas where this product is used.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable.

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For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

EYE PROTECTION: Safety glasses are required. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Canadian Standards.

HAND PROTECTION: Use protective gloves as appropriate to minimize skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

BODY PROTECTION: Use body protection appropriate to prevent contact (e.g. lab coat, overalls). If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Canadian Standards.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Information on basic physical and chemical properties

PHYSICAL STATE:	Solid
ODOR:	None
ODOR THRESHOLD (PPM):	Not Available
APPEARANCE / COLOR:	light gray to white colour
pH:	9.9 in a 10 wt.-% water slurry
MELTING / FREEZING POINT (C°):	1540°C
BOILING POINT (C°):	Not Available
FLASH POINT (C°):	Not Applicable
EVAPORATION RATE (nBuAc = 1):	Not Available
FLAMMABILITY (solid, gas):	Not Available
FLAMMABLE LIMITS (in air by volume, %):	Not Available
VAPOR PRESSURE (mmHg):	Not Applicable
VAPOR DENSITY (AIR=1):	Not Applicable
RELATIVE DENSITY	2.86-3.09
SOLUBILITY IN WATER (%)	Not Available
PARTITION COEFFICIENT: N-OCTANOL/WATER:	Not Available
AUTOIGNITION TEMPERATURE:	Not Available
DECOMPOSITION TEMPERATURE:	+1120°C
VISCOSITY:	Not Available
EXPLOSIVE PROPERTIES:	Not Applicable
OXIDISING PROPERTIES:	Not Available
Other Information	
Molecular Weight:	116.17 g/mol
POUR POINT:	Not Available

SECTION 10 - STABILITY and REACTIVITY

Reactivity: Not reactive.

Chemical Stability: Product is stable under recommended storage conditions.

Possibility of Hazardous Reactions: Not expected, polymerization will not occur.

Conditions to avoid: Creation of dust.

Incompatible materials: No data available.

Hazardous Decomposition Products: No data available.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

TOXICITY DATA: No specific data available for this product.

POTENTIAL HEALTH HAZARDS OR RISKS FROM EXPOSURE:

CARCINOGENICITY:

Wollastonite: IARC (1997) classifies wollastonite as Group 3 (not classifiable as to its carcinogenicity to humans), based on inadequate evidence in both humans and animals. In an epidemiological study of a small cohort of wollastonite quarry workers (Huuskonen et al, 1983), the observed deaths from all cancers and lung cancer were lower than expected. In a 2 year rat inhalation bioassay (NTP / McConnell et al, 1991), wollastonite did not cause an increased incidence of tumors; however, some concern exists regarding the concentration of specific fiber sizes used in the study.

Quartz: Silica dust, crystalline, in the form of quartz is classified by IARC as Group 1 (carcinogenic to humans) based on "sufficient evidence" in occupationally exposed humans and sufficient evidence in animals. Crystalline silica of respirable size is classified by the NTP as a known human carcinogen. In its 2013 Proposed Rule on respirable

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crystalline silica, "OSHA preliminarily concludes that the human data provides ample evidence that exposure to respirable crystalline silica increases the risk of lung cancer among workers", while NIOSH identifies various crystalline or fused silicas as potential occupational carcinogens. However, not all epidemiologic and animal studies have demonstrated a cancer association and some uncertainty exists concerning the cancer classification of crystalline silica. For example, in Europe, a recent review concludes that crystalline silica should not be classified as a carcinogen since silicosis of the lung is the key endpoint for classification (Morfeld, 2010).

IRRITANCY OF PRODUCT: Exposure with this product may be irritating to exposed skin, eyes, and respiratory system.

SENSITIZATION OF PRODUCT: This product is not considered a skin sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: This product does not contain components which are documented as reproductive hazards.

SECTION 12 - ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

Toxicity

No specific data available for this product.

Persistence and degradability

No specific data available for this product.

Bioaccumulative potential

No specific data available for this product.

Mobility in soil

No specific data available for this product.

Results of PBT and vPvB assessment

No specific data available on this product.

Other adverse effects

No specific data available for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, and those of Canada.

SECTION 14 - TRANSPORTATION INFORMATION

DOT:

PROPER SHIPPING NAME: Not Regulated

HAZARD CLASS NUMBER and DESCRIPTION: Not applicable

UN IDENTIFICATION NUMBER: Not applicable

PACKING GROUP: Not applicable

LABEL(S) REQUIRED: Not applicable

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2016): Not applicable

NOTE: Shipped in 10 & 25 Kg Bags, 1000 Kg Polypropylene Sacs, Bulk per Ton

MARINE POLLUTANT: None of the ingredients are classified by the DOT as a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B)

LAND (TDG):

PROPER SHIPPING NAME: Not Regulated

HAZARD CLASS NUMBER and DESCRIPTION: Not applicable

UN IDENTIFICATION NUMBER: Not applicable

PACKING GROUP: Not applicable

LABEL(S) REQUIRED: Not applicable

SEA (IMDG):

PROPER SHIPPING NAME: Not Regulated

HAZARD CLASS NUMBER and DESCRIPTION: Not applicable

EMS NUMBER: Not applicable

UN IDENTIFICATION NUMBER: Not applicable

PACKING GROUP: Not applicable

LABEL(S) REQUIRED: Not applicable

AIR (IATA)

PROPER SHIPPING NAME: Not Regulated

HAZARD CLASS NUMBER and DESCRIPTION: Not applicable

UN IDENTIFICATION NUMBER: Not applicable

PACKING GROUP: Not applicable

LABEL(S) REQUIRED: Not applicable

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TRANSPORTATION LIMITATIONS: Not applicable
TRANSPORT DOCUMENT NAME: Not applicable

SECTION 15 - REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

UNITED STATES REGULATIONS

SARA REPORTING REQUIREMENTS: This product is not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act.

TSCA: All components in this product are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals.

SARA 311/312:

Acute Health: Yes Chronic Health: Yes Fire: No Reactivity: No

U.S. CERCLA REPORTABLE QUANTITY (RQ): CERCLA Reportable Quantity RQ: None

CLEAN WATER ACT:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): This product contains ingredients which are on the California Proposition 65 lists: Silica, Crystalline, Quartz, Titanium Dioxide

CANADIAN REGULATIONS

WHMIS Classification: Classified per WHMIS 2015. See section 2 for details.

CEPA: All components of this material are either on the Canadian Domestic Substances List (DSL), exempt, or have been notified under CEPA.

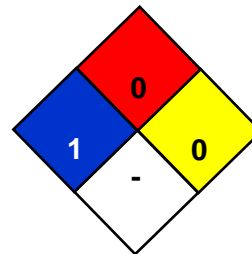
NATIONAL CHEMICAL INVENTORY LISTING: AICS, IECSC, DSL, EINECS, KECI, TSCA

SECTION 16 - OTHER INFORMATION

HMIS RATING

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

NFPA RATING



Caution: HMIS and NFPA ratings are based on a 0-4 rating scale

0= Minimal Hazard, 1= Slight, 2= Moderate, 3= High, 4= Extreme

GENERAL STATEMENTS:

Key or Legend to abbreviations and acronyms

AIHA	- American Industrial Hygiene Association
ACGIH	- American Conference of Governmental Industrial Hygienists
CASRN	- Chemical Abstract Services Registry Number
CFR	- Code of Federal Regulations
DOT	- United States Department of Transportation
IARC	- International Agency for Research on Cancer
OSHA	- Occupational Safety and Health Administration
NIOSH	- National Institute for Occupational Safety and Health
NTP	- National Toxicology Program
PPM	- Parts per million
n.o.s.	- not otherwise specified
Lbs.	- Pounds
PMCC	- Pensky-Martens Closed Cup
LC50	- Lethal Concentration 50 (concentration in water having a 50% chance of causing death to aquatic life)
EC50	- Effective Concentration that causes 50% inhibition in growth or mobilization
VOC	- Volatile Organic Compound

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MSDS to GHS Compliance (www.msdstoghs.com)

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Revision History:

August 9, 2017

June 27, 2020

- Document Creation
- Updated environmental

END OF SDS